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Specific Aims – Background and Gap

Ovarian cancer is a broad term that encompasses a variety of tumors that involve the ovary, affecting 240,000 women each year as the leading cause of gynecologic cancer death in developed countries. Epithelial ovarian cancer (EOC) represents the majority of ovarian cancers, which are divided into two groups: type I and type II tumors (1). Mutations in the tumor protein p53 gene (*TP53*) are one of the most common events in EOC, particularly in type II tumors (2). *TP53* encodes for tumor protein p53, a tumor suppressor that regulates cell division and apoptosis. Mutation of *TP53* leads to loss of p53 activity, resulting in the formation of cancerous tumors (3). Interestingly, while *TP53* is frequently mutated in type II EOC, these mutations are rarely seen in type I, with exception of the mucinous carcinoma. *TP53* mutations are seen in around half of mucinous carcinomas (4). *However, the molecular explanation for why TP53 mutations are only seen in one type I EOC has not yet been examined.*

References:

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