Over the past years the genomic landscapes of ovarian & uterine cancers have been well described. This has led to the recognition of molecularly and clinically distinct subtypes of these cancers which demand a more stratified approach to management. These include POLE mutated endometrioid carcinomas which have an excellent prognosis in spite of high risk pathologic features and pathognomonic mutations in granulosa cell tumour of the ovary, small cell hypercalcemic carcinomas of the ovary & endometrial stromal sarcomas. The determination of how to use such information in the development of treatment involves multifaceted research efforts including the development of animal models. Such mutations can be rapidly developed, through ctDNA analysis as monitoring tools. These proximate gains in knowledge are being seen with other common mutations such as ARID1A in endometrial & endometriosis associated cancers and Cyclin E1 amplification in ovarian cancer. The subtypes of ovarian carcinoma are truly distinct diseases the fact that distinct treatment opportunities are concentrated within subtypes is not surprising. Due to inherent rarity of subgroups within any histologic subtype of ovarian cancer there is limited number of clinical options that can be tested at any one time by the international clinical trials community making it incumbent on the basic & translational research community to present the best possible options. If we are going to effectively bring genomic based subtype specific treatment opportunities from idea stage into the realm of clinical reality appropriate subtype specific model systems and a better understanding of the functional importance and stability of proposed targets within cancers are required. These complexities lead to a long lag time the continued and increasing interest in Parp1 inhibitors shows that this will be worth the wait. The past ten years has seen the management of ovarian and endometrial cancers shift from a generic approach, which has offered minimal improvements in outcomes since the adoption of platinum based therapies as standard of care, to a stratified one in which women with molecularly or pathologically defined subgroups of cancer are offered distinct treatment options. The ultimate impact of this shift in strategy will take years to measure but will likely be profound.

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