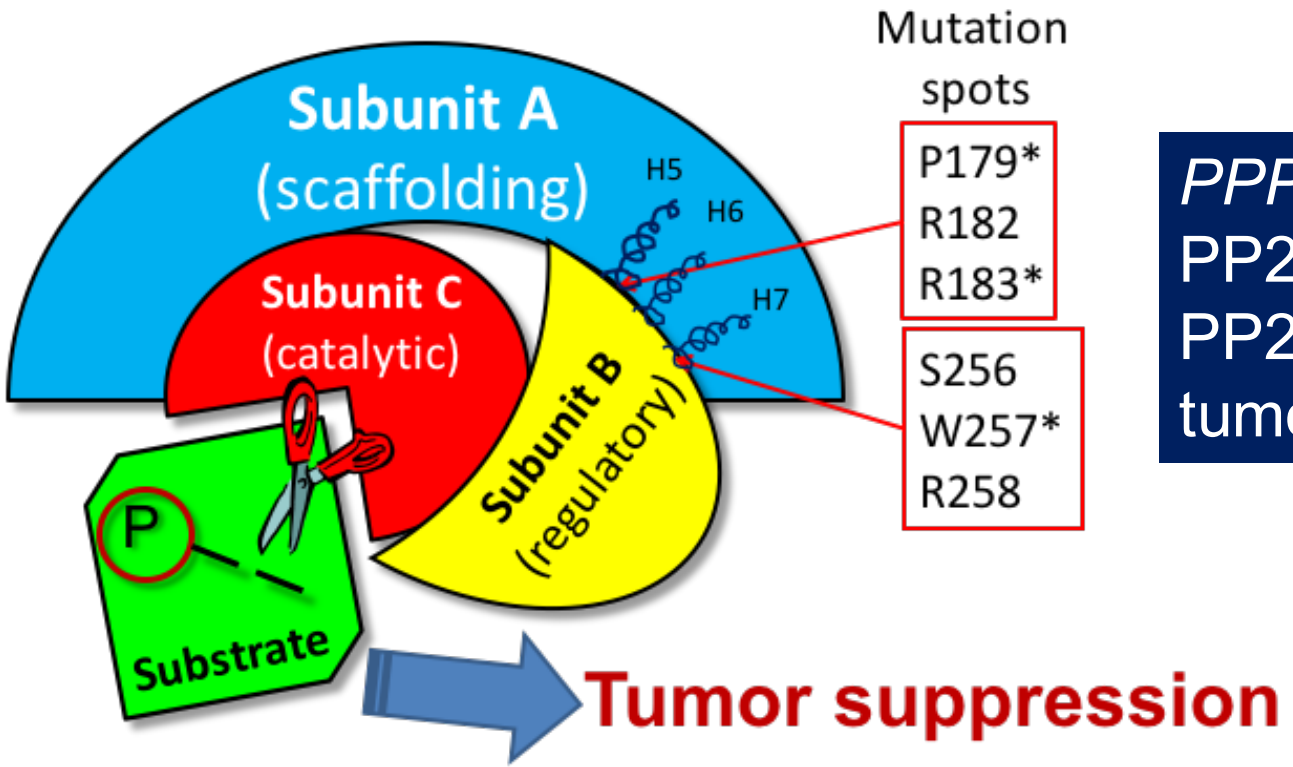
Clinicopathological characteristics and molecular genetic features in uterine (endometrial) and ovarian serous carcinoma

	Age of diagnosis	Clinical behavior	Microscopic features	Associated lesions	Precursor lesions	*TP53* mutation	*PIK3CA* mutation	*PPP2R1A* mutation*
Uterine serous carcinoma	Always >65 yrs	Advanced stage; highly aggressive; poor prognosis	Papillary growth; CINful; high mitotic activity; high-grade nuclei	Atrophic endometrium; endometrial polyp	Endometrial intraepithelial carcinoma	>90%	15%	20%~40%
Ovarian high-grade serous carcinoma	Most common 45~70 yrs	Advanced stage; highly aggressive; poor prognosis	Papillary growth; CINful; high mitotic activity; high-grade nuclei	Above features not present	Tubal intraepithelial carcinoma	~100%	<1%	0

CINful: increased chromosomal instability as reflected by abnormal mitoses (increased spindle pole numbers, anaphase bridges and micronuclei) and widespread DNA copy number gain and loss.
*Based on two recent studies discussed in this commentary [3, 4].



PPP2R1A encodes subunit A of PP2A mutations may lead to PP2A inactivation and loss of its tumor suppressor functions