Public	cation trends	Total	gastrointestinal	hepatic, pancreatic, biliary	mammary	neural	reproductive	respiratory	urinary	other
• lo	cation counts	all tumor	esophagus large intestine stomach – diffuse–type gastric	biliary liver pancreas	mammary - triple-negative breast	brain other neural	cervix ovary prostate	lung - non-small-cell lung	bladder kidney – clear cell renal cell carcinoma – renal cell carcinoma	bone dermal lymphatic vascular unidentified
trend			. •	• • •	•	• •	• • •		• • • •	• • • •
model / source	squamous cell carcinoma patient-derived organoid patient-derived xenograft	•	•	•						•
therapy	patient-derived xenograft personalized medicine chemotherapy chemoresistance targeted therapy immunotherapy adoptive cell therapy immune checkpoint monoclonal antibody oncolytic virus radiotherapy radioresistance				•	•		• •	• • •	
pharmacology	drug development drug testing drug delivery			•	• •		·	:	•	
physiology	tumorigenesis cancer stem cell tumor heterogeneity tumor microenvironment hypoxia angiogenesis CAF metastasis EMT intra/extravasation circulating tumor cell microsatellite instability			.:		:	0 0	•	• • · ·	
immune cells	immune cells lymphocyte natural killer cell B cell T cell macrophages TAM neutrophil	•	:		:			:		
cellular process	apoptosis autophagy extracellular vesicles	•	•		• •	•		•		•
techniques	gene editing genomics epigenetics transcriptomics scRNA seq proteomics mass spectrometry high-content analysis optical metabolic imaging				:	•				