

Appendix 4. Search string:

Search string	Database	Number hits	Number of citations downloaded
((("Artificial intelligence" OR "Deep learning" OR "machine learning" OR "natural language processing" OR "Neural network*" OR "supervised learning" OR "unsupervised learning" OR "ensemble learning" OR "reinforcement learning") AND ("detect*" OR "predict*" OR "diagnose*" OR "prognose*") AND ("Prostate cancer" OR "Acinar adenocarcinoma" OR "adenocarcinoma of prostate" OR "Ductal adenocarcinoma" OR "Transitional cell cancer" OR "urothelial cancer" OR "Squamous cell cancer" OR "Small cell prostate cancer"))	Google Scholar	16,200	First 100, sorted by relevance.
((("Artificial intelligence" OR "Deep learning" OR "machine learning" OR "natural language processing" OR "Neural network*" OR "supervised learning" OR "unsupervised learning" OR "ensemble learning"	PubMed	398	All

OR "reinforcement learning") AND ("detect*" OR "predict*" OR "diagnose*" OR "prognose*") AND ("Prostate cancer" OR "Acinar adenocarcinoma" OR "adenocarcinoma of prostate" OR "Ductal adenocarcinoma" OR "Transitional cell cancer" OR "urothelial cancer" OR "Squamous cell cancer" OR "Small cell prostate cancer"))			
((("Artificial intelligence" OR "Deep learning" OR "machine learning" OR "natural language processing" OR "Neural network*" OR "supervised learning" OR "unsupervised learning" OR "ensemble learning" OR "reinforcement learning") AND ("detect*" OR "predict*" OR "diagnose*" OR "prognose*") AND ("Prostate cancer" OR "Acinar adenocarcinoma" OR "adenocarcinoma of prostate" OR "Ductal adenocarcinoma" OR "Transitional cell cancer" OR "urothelial cancer" OR "Squamous cell	Embase	815	All

cancer" OR "Small cell prostate cancer"))			
((("Artificial intelligence" OR "Deep learning" OR "machine learning" OR "natural language processing" OR "Neural network*" OR "supervised learning" OR "unsupervised learning" OR "ensemble learning" OR "reinforcement learning") AND ("detect*" OR "predict*" OR "diagnose*" OR "prognose*") AND ("Prostate cancer" OR "Acinar adenocarcinoma" OR "adenocarcinoma of prostate" OR "Ductal adenocarcinoma" OR "Transitional cell cancer" OR "urothelial cancer" OR "Squamous cell cancer" OR "Small cell prostate cancer"))	Medline	172	All