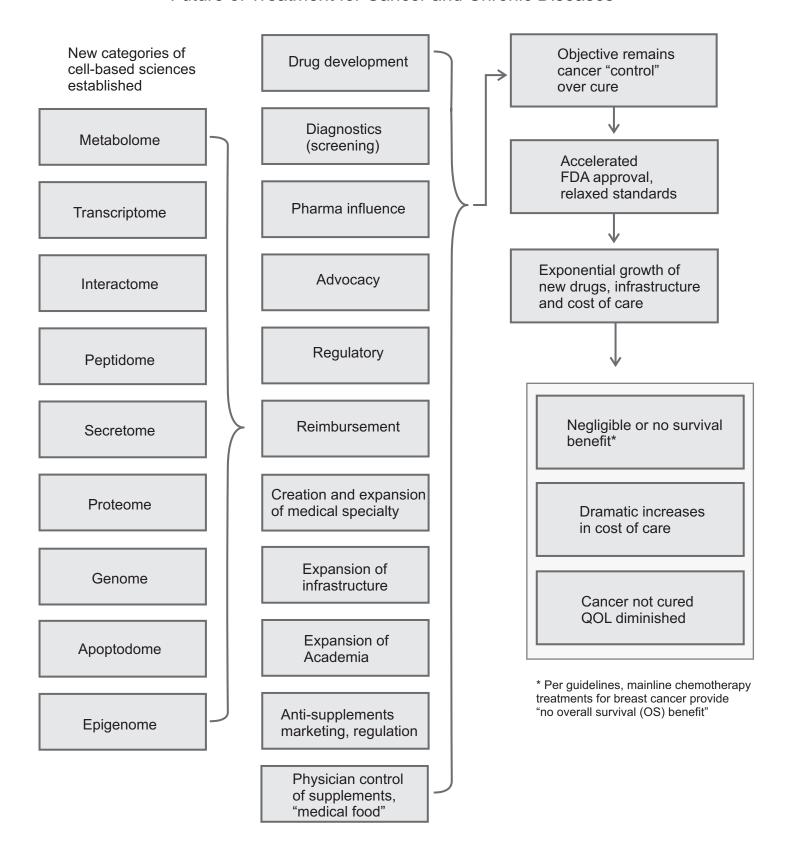
Genetics and Conventional Medicine: Future of Treatment for Cancer and Chronic Diseases



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* Per guidelines, mainline chemotherapy treatments for breast cancer provide "no overall survival (OS) benefit"



article excerpt:

"Since one or more of the VEGF ligand family is overexpressed in most solid cancers, there was great optimism that inhibition of the VEGF pathway would represent an effective antiangiogenic therapy for most tumour types. Encouragingly, VEGF pathway targeted drugs such as bevacizumab, sunitinib and aflibercept have shown activity in certain settings. However, inhibition of VEGF signalling is not effective in all cancers, prompting the need to further understand how the vasculature can be effectively targeted in tumours." (an amazing understatement for known resistance mechanisms!)

Table 1 Randomised trials of anti-angiogenic agents cited in this article

Breast cancer	Treatment	<u>Trial</u>	Outcome
Metastatic 1st line:	Paclitaxel ± bevacizumab Docetaxel ± bevacizumab (HER-2 negative population)	E2100 [40] AVADO [41]	Improvement in PFS not OS Improvement in PFS, OS NA
	Capecitabine, taxane or anthracycline ± bevacizumab (HER-2 neg pop)	RIBBON-1 [42]	Improvement in PFS but not in OS
	Docetaxel and trastuzumab ± bevacizumab (HER-2 pos pop)	AVEREL [104]	No improvement in PFS, OS NA
	Docetaxel ± sunitinib (HER-2 negative population)	Sun 1064 [45]	No improvement in PFS or OS
	Paclitaxel ± bevacizumab or sunitinib (HER-2 negative population)	SUN 1094 [46]	Inferior PFS for sunitinib arm
Prostate cancer (CRPC)*	* <u>Treatment</u>	<u>Trial</u>	<u>Outcome</u>
Metastatic 1st line:	Docetaxel/prednisone ± bevacizumab Docetaxel/prednisone ± aflibercept	CALGB 90401 VENICE [53]	Improvement in PFS but not OS No improvement in PFS or OS

PFS - progression-free survival
OS - overall survival
CRPC - castrate-resistant prostate cancer

Anti-angiogenic therapy for cancer: current progress, unresolved questions and future directions, N S Vasudev, A R Reynolds, Institute of Cancer Research J Angiogenesis, 2014 \anti-angiogenics unresolved 2014.pdf \PC recur CRPC 2017.pdf