S2 table

Colorectal cancer	Reference and study details	Tumour response	Survival	Other	Conclusion from study
paclitaxel	[43], case series study, 7 patients with stage IV anal cancer, with progression on previous therapy with 5-FU and cisplatin combination, paclitaxel 80 mg/m2/week for 3 weeks every 4 weeks.	Complete response: 14.28% Partial response: 42.85% Overall response rate: 57.14%		Stable disease: 14.28%	Paclitaxel monotherapy can be associated with a meaningful clinical benefit in patients with advanced anal squamous cell cancer who have progressed on prior 5-FU and cisplatin chemotherapy.
docetaxel	[44], phase II trial, 18 patients with advanced, measurable colorectal carcinoma, docetaxel 100mg/m^2 every 21 days.	Complete response: 0% Partial response: 0% Overall response rate: 0%	Median survival: 13 months	Median time to progression: 1.3 months	Despite encouraging preclinical data, docetaxel is an inactive drug in advanced colorectal cancer.
vinorelbine	[45], 16 consecutive patients with lung metastases from colorectal adenocarcinoma, vinorelbine tartrate 25 mg/m^2 every week.	Complete response: 0% Partial response: 0% Overall response rate: 0%	Median survival: 6.7 months	Stable disease (mean 5.2 months): 25%	The activity of VNR on a weekly schedule against lung metastases from large bowel adenocarcinoma is very low.
everolimus	[46], phase II study, 142 patients with metastatic colorectal cancers refractory to bevacizumab, fluoropyrimidine, oxaliplatin, and irinotecan based regimens. 71 patients in everolimus 70mg/week regimen (group A), 71 patients in 10mg/day everolimus regimen (group B).		Median OS: 4.9 months for group A, 5.9 months for group B. Median PFS: 1.8 months for group A, 1.8 months for group B.	Median SD (3.9 months): 31% patients for group A, 32.4% for group B.	Everolimus did not confer meaningful efficacy in heavily pretreated patients with metastatic colorectal cancers.

Renal cell carcinoma	Reference and study details	Tumour response	Survival	Other	Conclusion from study
paclitaxel	[47], review of the chemotherapy options for renal cell carcinoma				The taxanes (paclitaxel, docetaxel) have demonstrated no significant activity

vinorelbine	[48], nude mice study			TUNEL assay: significant tumour cell apoptosis. P < 0.05 and P < 0.01 (treated group versus control group). anti-vWF antibody tumour staining: significant decrease in the number of stained vessels (2C3- and vinorelbine-treated groups (P < 0.01) versus control group)	Significant tumour growth inhibition when using vinorelbine in 786-O tumour-bearing mice.
everolimus	[49], phase 3 trial study in patients with metastatic renal cell carcinoma, n = 416, everolimus 10mg/day		Overall survival: 14.8 months (everolimus) versus 14.4 months (placebo) Progression free survival: 4.9 months (everolimus) versus 1.9 months (placebo)		Efficacy and safety of everolimus in patients with mRCC after progression on sunitinib and/or sorafenib.
eribulin	[50], phase II trial study in 150 patients with AUC, eribulin 1.4mg/m2 IV on d1 & 8, q3 wks	Overall response rate: 32% (95% CI)	Median OS months: 9.4 (95%CI) Median PFS months: 3.9 (95%CI	Median SD weeks: 13.9	Eribulin exceeded the prespecified benchmark in all strata with highly encouraging single agent activity in AUC.
docetaxel	[47], review of the chemotherapy options for renal cell carcinoma				The taxanes (paclitaxel, docetaxel) have demonstrated no significant activity
Hepatocellular carcinoma	Reference and study details	Tumour response	Survival	Other	Conclusion from study
everolimus	[51], randomized clinical trial, 546 patients with Barcelona Clinic Liver Cancer stage B or C hepatocellular carcinoma and Child-Pugh A liver function whose disease progressed during or after sorafenib or who were intolerant of sorafenib, everolimus 7.5 mg/day		Median OS: 7.6 months (everolimus) vs 7.3 months (placebo)	Median time to progression months: 3.0 everolimus vs 2.6 (placebo)	Everolimus did not improve overall survival in patients with advanced hepatocellular carcinoma whose disease progressed during or after receiving sorafenib or who were intolerant of sorafenib.

docetaxel	reference missing				
midostaurin	reference missing				
paclitaxel	[52], phase I study, 16 patients with unresectable HCC, paclitaxel 90 mg/m2/week	Complete response: 6.25% Partial response: 0% Overall response rate: not reported		Stable disease: 56.25%	Paclitaxel given at 90 mg/m2/week this dose and schedule might have activity in hepatocellular carcinoma.
idarubicin	[53], 21 patients with hepatocellular carcinoma, single TACE session with injection of 2 mL drug-eluting beads loaded with idarubicin	Complete response: 28% Partial response: 24% Overall response rate: 52%	Median OS: 24.5 months	Median time to progression: 12.1 months	

Endometrial cancer	Reference and study details	Tumour response	Survival	Other	Conclusion from study
triptorelin	[54], phase II multicenter study, 24 patients with advanced or recurrent endometrial cancer.	Complete response: 4.35% Partial response: 4.35% Overall response rate: 8.7%	Median survival: 7.2 months	Stable disease: 21.74%	Although the response rate was disappointing, several patients showed early evidence of efficacy which may be of long duration.
docetaxel	[55], prospective phase II study, 50 patients with advanced or metastatic endometrial cancer, docetaxel 70 mg/m^2 administered intravenously on day 1 of a 3-week cycle.	Complete response: 30% Partial response: 4% Overall response rate: 34%	Median survival: 18 months	Median duration of response: 2 months	The study clearly demonstrated that docetaxel is active in the treatment of endometrial cancer.
paclitaxel	no reference				
eribulin	[56], phase I study, 32 patients: colorectal (8), ovary (5), uterus (2), breast (2), cervix (2), lung (2), liver (2). Eribulin escalating dose of 0.25, 0.5, 0.7,1.0, or 1.4mg/m^2, on days 1, 8, and 15 of a 28-day cycle.			Disease stabilization: in the patient with endometrial cancer previously treated with doxorubicin/paclitaxel and cisplatin, experienced stable disease for 219 days	Encouraging activity in this dose-finding study.
everolimus	[57], 44 patients with advanced or metastatic endometrial cancer, everolimus 10mg/day.	Complete response: 5% Partial response: 0% Overall response rate: 5%		3-month non-progressive disease rate: 36	Everolimus demonstrated efficacy.

Glioma	Reference and study details	Tumour response	Survival	Other	Conclusion from study

docetaxel	[58], 14 patients with recurrent supratentorial malignant glioma, docetaxel 80 mg/m2.	Complete response: 0% Partial response: 0% Overall response rate: 0%			Docetaxel displayed no significant activity
midostaurin	no reference				
paclitaxel	[59], 41 patient with recurrent malignant glioma, paclitaxel 210-240 mg/m2.			3-month non-progressive disease rate: 35	Modest response rate.
everolimus	[60], phase II clinical trial, 58 patients with grade II gliomas, 47 with WHO grade II disease (group A) and 11 with WHO grade III/IV disease (group B), everolimus 10mg daily.	Objective response rate: 0%	Median PFS for group A: 1.4 years Median PFS for group B: 0.6 years PFS-6 (6 months) for group A: 84% PFS-6 (6 months) for group B: 55% Median OS: not reached	Stable disease 1 year: 46%	Patients with recurrent LGGs demonstrated a high degree of disease stability during treatment with everolimus.
vinorelbine	[61], clinical study, 23 patients with progressive unresectable low-grade glioma (optic pathway glioma), vinorelbine 30 mg/m^2 days 0, 8, 22, for a total of 18 cycles.	Overall response rate: 63%	Median PFS: 33 months		Vinorelbine may be an interesting option for pediatric low-grade gliomas, showing low toxicity profile and providing a good quality of life for patients with such chronic disease.

Prostate cancer	Reference and study details	Tumour response	Survival	Other	Conclusion from study
docetaxel	[62], clinical trial, comparing patients with prostate cancer, 592 receiving docetaxel 75mg/m^2 for six three-weekly cycles, and 1184 standard-of-care only.		Median survival (docetaxel): 81 months Median survival (standard-of care only): 71 months		Docetaxel significantly improved median survival by 10 months
paclitaxel	[63], clinical study, 43 patients with metastatic hormone-refractory prostate cancer (HRPC), paclitaxel 80 mg/m^2 weekly.	Partial response: 31.2%		Stable disease: 56.2 % PSA response: 36.1%	Docetaxel every 3 weeks is the standard of care for metastatic HRPC, but our results suggest some activity and an acceptable toxicity of weekly paclitaxel.

triptorelin	[64], multi-center phase IV study, 41 patients with newly diagnosed, locally advanced, or metastatic adenocarcinoma of the prostate, 11.25 mg triptorelin on Day 0 (baseline) and on Day 90			baseline median PSA: 122.69 ng/mL median PSA on Day 90: 10.40 ng/mL median PSA on Day 180: ≤0.5 ng/mL	Triptorelin can be an effective treatment for advanced prostatic cancer.
vinorelbine	[65], phase II study, 47 patients with progressive metastatic prostate cancer refractory to first-line or second-line hormonal therapy, vinorelbine 19mg/m^2 weekly		median survival: 10.2 months	PSA decline ≥50%: six (17%) patients	vinorelbine appears to be a safe treatment for those patients with androgen-independent prostate cancer and poor prognosis
everolimus	[66], single-arm phase 2 trial, 37 chemotherapy-naive patients with metastatic castration-resistant prostate cancer (mCRPC) and progressive disease, everolimus 10mg daily.	Complete response: 0% Partial response: 46.15% Overall response rate: 46.15%		PSA decline ≥50%: two (5%) patients PSA decline ≥30%: four more (11%) patients	Everolimus activity in unselected patients with mCRPC is moderate

Thyroid cancer	Reference and study details	Tumour response	Survival	Other	Conclusion from study
everolimus	[67], clinical study, phase II clinical trial, 28 patients with progressive metastatic or locally advanced radioactive refractory differentiated thyroid cancer and 7 patients with anaplastic thyroid cancer, 10 mg/day.	Complete response: 0% Partial response: 0%	Median OS: 18 months Median PFS: 9 months		clinically relevant antitumor activity in patients with advanced differentiated thyroid cancer
docetaxel	[68], clinical study, 7 patients with anaplastic thyroid cancer who had received no prior chemotherapy, docetaxel 60 mg/m^2 every 3 weeks	Complete response: 1% Overall response rate: 14%		Stable disease: 28.57%	Docetaxel could be an effective drug for the treatment of anaplastic thyroid cancer.
midostaurin	no reference				
paclitaxel	[69], multicenter study, 56 patients with anaplastic thyroid cancer (ATC), 80mg/m^2 weekly paclitaxel	Complete response: 0% Partial response: 21% Overall response rate: 21%	Median OS: 6.7 months Median PFS: 1.6 months	Stable disease: 52%	Weekly paclitaxel administration for ATC patients can be of clinical benefit in a neo-adjuvant setting
idarubicin	no reference				

Basal cell carcinoma	Reference and study details	Tumour response	Survival	Other	Conclusion from study
docetaxel	no reference				
paclitaxel	[70], case series, 2 patients with BCC, paclitaxel 175 mg/m^2 every 21 days and paclitaxel 75 mg/m^2	1 complete response 1 partial response Overall response rate: 100%			Considering the promising antitumoral activity of taxanes, evaluation of the role of paclitaxel in a clinical trial may be warranted.
vinorelbine	no reference				
midostaurin	no reference				
triptoreline	no reference				
Melanoma	**Reference and study details**	**Tumour response**	**Survival**	**Other**	**Conclusion from study**
(nab)paclitaxel	[71], phase III randomized trial, 264 chemotherapy-naïve patients with stage IV melanoma, nab-paclitaxel 150 mg/m^2 on days 1, 8, and 15 every 4 weeks	Overall response rate: 15%	median OS: 12.6 months median PFS: 4.8 months	Disease control rate: 39%	nab-Paclitaxel significantly improved PFS and DCR compared with dacarbazine
docetaxel	[72], phase II study, 37 patients with metastatic malignant melanoma and no prior chemotherapy, docetaxel 100 mg/ m^2 every 21 days	Complete response: 2.7% Partial response: 2.7%			definite but low-level activity against malignant melanoma
everolimus	[73], case report, patient with progressive ulcerated mucosal melanoma and one prior systemic therapy, everolimus 10 mg/day			Overall tumor shrinkage of approximately 35%	Everolimus may be effective and safe for patients with melanoma who develop resistance to imatinib.
triptorelin	no reference				
eribulin (halichondrin B	[74], in vivo xenograft studies, LOX human melanoma xenograft models using nude mice, 0.125–1.0 mg/kg ER-076349 and ER-086526			78% tumor growth inhibition on day 17 with ER-086526 0.05 mg/kg complete tumor suppression with higher doses	Demonstrated highly potent in vitro and in vivo anticancer activities of two fully synthetic, macrocyclic ketone analogues of halichondrin B, ER-076349, and ER-086526

vinorelbine	[75], clinical study, 21 eligible patients with disseminated malignant melanoma and one prior systemic therapy, vinorelbine 30 mg/m^2 weekly.	Complete response: 0% Partial response: 0% Overall response rate: 0%	median OS: 6 months median PFS: 2 months		Despite impressive preclinical activity against melanoma, vinorelbine does not appear to have enough clinical activity to be of interest in previously treated patients with disseminated melanoma.
Bladder cancer	**Reference and study details**	**Tumour response**	**Survival**	**Other**	**Conclusion from study**
docetaxel	[76], phase II study, 31 non-chemotherapy pretreated patients with metastatic urothelial cell cancer, docetaxel 100 mg/m^2 every 3 weeks.	Complete response: 13.79% Partial response: 17.24% Overall response rate: 31.03%			Docetaxel is an effective agent in urothelial cell cancer
triptorelin	no reference				
vinorelbine	[77], case series, 3 patients with refractory metastatic small-cell carcinoma of the bladder and extensive prior therapy, Vinorelbine 25 mg/m2 on day 1, 8, and 15	Complete response: 33.33% Partial response: 66.67% Overall response rate: 100%			Vinorelbine is well tolerated and has activity in this case series in the second-line treatment of metastatic small-cell carcinoma of the bladder
eribulin	[78], phase II clinical study, 40 patients with advanced urothelial carcinoma (UC), eribulin 1.4mg/m^2 on d 1 & 8, q3weeks.	Complete response: 2.5% Partial response: 35% Overall response rate: 37.5%	Median OS: 9.4 months Median PFS: 3.9 months		E7389 (eribulin) has single agent activity in UC, even in patients with prior neo/adjuvant chemotherapy.
midostaurin	no reference				
Chronic myeloid leukemia	**Reference and study details**	**Tumour response**	**Survival**	**Other**	**Conclusion from study**
everolimus	no reference				
vinorelbine	[79]. clinical trial, three patients with chronic myeloid leukaemia in blast crisis (CML-BC), vinorelbine 25 mg/m^2 days 1 and 8.	Complete response: 100%			Vinorelbine-sensitivity testing of primary leukaemia cells might help tailor Vinorelbine-based salvage regimens to those patients who are most likely to respond.
triptorelin	no reference				
docetaxel	no reference				
paclitaxel	no reference				

Acute myeloid leukemia	Reference and study details	Tumour response	Survival	Other	Conclusion from study
docetaxel	[80], phase II study, Ten patients (children) with second relapsed acute lymphoblastic leukemia (ALL) and two patients (children) with acute myeloid leukemia (AML), 60 mg/m(2) weekly x 3 weeks.	Complete response: 0% Partial response: 0%			Docetaxel was not effective therapy for children with relapsed ALL at the dose and schedule tested
paclitaxel	no reference				
triptorelin	[81], case report, treatment with the gonadotropin-releasing hormone agonist (GnRH agonist) triptorelin for presumed prostate cancer.				Remission in an AML-M4 case after treatment with the gonadotropin-releasing hormone agonist (GnRH agonist) triptorelin for presumed prostate cancer.
everolimus	[82], clinical study, 40 patients with relapsed AML, primary refractory AML, or AML patients unfit for intensive chemotherapy, everolimus with azacitidine or alone.	Overall response rate everolimus plus azoles : 50% Overall response rate everolimus alone: 16%	Median OS with everolimus plus azoles: 12.8 months Median OS everolimus alone: 6 months		promising clinical activity
vinorelbine	[79], clinical study, 4 patients with acute myeloid leukemia, vinorelbine, 25 mg/m^2 days 1 and 8.	Complete response: 0% Partial response: 0% Overall response rate: 0%		in-vitro vinorelbine-induced apoptotic cell death: 80%	Vinorelbine-sensitivity testing of primary leukaemia cells might help tailor Vinorelbine-based salvage regimens to those patients who are most likely to respond.

Small cell lung cancer	Reference and study details	Tumour response	Survival	apoptotic cell deat	Conclusion from study
docetaxel	[83], phase II trial, 34 patients with previously-treated small cell carcinoma of the lung, docetaxel 100 mg/m^2 every 21 days.	Complete response: 0% Partial response: 25% Overall response rate: 25%			Docetaxel is a new compound with activity in previously-treated patients with small cell lung cancer
paclitaxel	[84], phase II study, 22 patients with relapsed and refractory small cell lung cancer, 80 mg/m^2 paclitaxel administered weekly.	Complete response: 0% Partial response: 23.81% Overall response rate: 23.81%		Progressive disease: 52.83%	Paclitaxel, administered as a weekly infusion at a dose of 80 mg/m2, was effective in treating relapsed and refractory SCLC.

triptorelin	[85], clinical study, 3018 patients with lung cancer, 339 of them using some form of APM (Androgen Pathway Manipulator), patients exposed to APM after their diagnosis in group A, and patients exposed to APM before and after their diagnosis in group B.		survival in group A: HR 0.36, p = 0.0007 survival in group B: HR 0.53, p < 0.0001		In male patients diagnosed with lung cancer, exposure to APM is associated with significantly better survival when compared with no exposure.
everolimus	[86], phase II study, 40 patients with previously treated, relapsed SCLC, 10 mg orally daily	Partial response: 2.85%	Median survival: 6.7 months DCR (disease control rate) at 6 weeks: 26%	Stable disease: 22.85 DCR (disease control rate) at 6 weeks: 26%	Limited single-agent antitumor activity in unselected previously treated patients with relapsed SCLC
vinorelbine	[87], phase II study, 26 previously treated patients with progressive recurrent small cell lung cancer, vinorelbine, 30 mg/m^2 weekly	Complete response: 0% Partial response: 16%		Stable disease: 28 Median time to progression: 46.5	Some antitumour activity of vinorelbine in pretreated SCLC patients

Non small cell lung cancer	Reference and study details	Tumour response	Survival	Other	Conclusion from study
paclitaxel	[88], randomized clinical trial, 157 patients with stage IIIB or IV NSCLC who had received no prior chemotherapy, group A receiving best supportive care (BSC), group B receiving BSC plus paclitaxel.	Complete response: 1.32% Partial response: 14.47% Overall response rate: 15.79%	Median survival: 4.8 months (group A) vs 6.8 months (group B)		Survival was statistically significantly better in the paclitaxel plus BSC arm than in the BSC alone arm
docetaxel	[89], multicenter, randomized, phase III study, 207 patients with either unresectable or metastatic non-small cell lung cancer, docetaxel 100 mg/m^2 every 21 days	Complete response: 1.5% Partial response: 11.7% Overall response rate: 13.1%	2-year survival: 12% in patients receiving docetaxel vs 0% in patients receiving best supportive care (BSC) only		significant anticancer activity of DCT compared to BSC arm
everolimus	[90], clinical trial, 33 patients with resectable non-small cell lung cancer, divided in group A (control), group B (5mg/day everolimus), and group C (10mg/day everolimus).	Overall response rate: 100%			measurable, dose-dependent, biologic, metabolic, and antitumor activity of everolimus in early-stage NSCLC.

vinorelbine	[91], multicenter randomized clinical trial, 161 patient with stage IV or IIIB NSCLC.	Complete response: 1.31% Partial response: 18.42% Overall response rate: 19.73%	Median survival: 28 weeks		statistically significant (two-sided P = .03) survival advantage for patients receiving vinorelbine
Breast cancer	Reference and study details	Tumour response	Survival	Other	Conclusion from study
everolimus	[92], phase III randomized clinical trial, 724 patients with hormone-receptor–positive advanced breast cancer. Group A treated with exemestane plus everolimus, group B with exemestane only.	Complete response rates: 0.4% for group A, 0.0% for group B. Partial response rates: 9.1 for group A, 0.4% for group B. Objective response rate: 9.5% for group A, 0.4% for group B.	Median PFS: 6.9 months (group A) vs 2.8 months (group B).	Stable disease: 70.1/58.6	Everolimus combined with an aromatase inhibitor improved progression-free survival in patients with hormone-receptor-positive advanced breast cancer previously treated with nonsteroidal aromatase inhibitors.
docetaxel	[93], review of clinical efficacy of docetaxel for the various treatment scenarios of breast cancer: first-line treatment (treat A), with anthracycline-resistant (treat B), and anthracycline-refractory (treat C) disease.	Objective response rate: 59% for treat A, 41% for treat B, 37% for treat C.			Docetaxel has shown impressive antitumor activity in the treatment of metastatic breast cancer.
temsirolimus	[94], phase II study, 31 patient with with pretreated breast cancers, receiving temsirolimus at a dose of 25 mg weekly.	Complete response: 0% Partial response: 0% Overall response rate: 0%		Stable disease for 24 weeks: 9.7% Median time to progression: 7.9 weeks	Single agent temsirolimus has minimal activity in a population of women with heavily pretreated breast cancer.
midostaurin	no reference				
(nab)paclitaxel	[95], phase 2 randomized study, 302 patients with stage IV (metastatic) breast cancer, group A receiving ABI-007 (nab-paclitaxel) vs paclitaxel	Overall response rate: 49% (nab-paclitaxel) vs 35% (paclitaxel)	Median OS: 33.8 months (nab-paclitaxel) vs 26.6 (paclitaxel) Median PFS: 12.9 months (nab-paclitaxel) vs 7.5 months (paclitaxel)	Stable disease: 80% (nab-paclitaxel) vs 58% (paclitaxel).	Encouraging responses and median time to progression were observed.
Gastric cancer	Reference and study details	Tumour response	Survival	Other	Conclusion from study

everolimus	[96], phase III study, 656 patients with advanced gastric cancer, group A receiving everolimus, group B placebo, both groups with best supportive care		Median OS: 5.4 months (everolimus) vs 4.3 months (placebo) Median PFS: 1.7 months (everolimus) vs 1.4 months (placebo)	Compared with best supportive care, everolimus did not significantly improve overall survival for advanced gastric cancer that progressed after one or two lines of previous systemic chemotherapy
docetaxel	[97], phase III study, 639 patients with advanced gastric cancer, group A receiving docetaxel plus S-1, group B S-1 alone.	Complete response: 1.26% (group A) vs 2.06% (group B) Partial response: 37.55% (group A) vs 24.69% (group B) Overall response rate: 38.8%/26.8%	Median OS: 12.5 months (group A) vs 10.8 months (group B) Median PFS: 5.3 months (group A) vs 4.2 months (group B)	As first-line treatment for advanced gastric cancer, docetaxel plus S-1 significantly improves median overall and progression-free survival as compared with S-1 alone.
midostaurin	no reference			
(nab)paclitaxel	[98], multicenter phase II study, 54 patients with unresectable or recurrent gastric cancer who experienced progression despite fluoropyrimidine-containing treatment	Complete response: 1.85% Partial response: 25.95% Overall response rate: 27.8%	Median OS: 9.2 months Median PFS: 2.9 months	promising activity in patients with previously treated unresectable or recurrent gastric cancer
idarubicin	[99], phase II trial, 17 patients with advanced gastric cancer, idarubicin 15 mg/m^2	Complete response: 0% Partial response: 0% Overall response rate: 0%		no documented activity