



Supplemental Material to:

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Trial watch

Anticancer radioimmunotherapy

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Supplementary Table 1. Ongoing clinical trials testing anticancer radioimmunotherapy in cancer patients*

Approach	Cancer type	Status	Phase	RT	Single arm	RT vs No RT	RT1 vs RT2	RT in both arms	Notes	Ref
ACT	CRC	Recruiting	II	EBRT				X	Combined with DC-CIK cells	NCT01839539
	Gastroesophageal	Recruiting	n.a.	3D-CRT IMRT				X	Alone or combined with DC-CIK cells	NCT01691664
	HNC	Not yet recruiting	II	EBRT				X	Combined with DC-CIK cells	NCT01821495
	Sarcoma	Not yet recruiting	n.a.	IMRT	X				Combined with chemotherapy, as post-HSCT maintenance	NCT01795430
Cytokines	CNS Neuroectodermal	Not yet recruiting	n.a.	SIRT	X				¹³¹ I-MIBG combined with G-CSF and potassium iodide	NCT01850888
		Recruiting	III	EBRT				X	Combined with IFN α -2b and temozolomide	NCT01765088
	Melanoma	Recruiting	II	SBRT		X			Combined with IL-2	NCT01416831
DC-based	CNS Neuroectodermal	Recruiting	II	EBRT				X	Combined with surgery and temozolomide \pm DCs pulsed with tumor cell lysates	NCT01567202
		Not yet recruiting	II	EBRT		X			Combined with sipuleucel-T	NCT01807065
	Prostate	Not yet recruiting	II	SBRT	X				Combined with sipuleucel-T	NCT01818986
		Not yet recruiting	n.a.	EBRT	X				As single-fraction radiation therapy combined with sipuleucel-T	NCT01833208
	Sarcoma	Recruiting	II	EBRT			X	X	Alone or combined with intratumoral autologous DCs vaccine	NCT01347034
ICDi	Breast	Recruiting	III	EBRT				X	Combined with TAC or TCX	NCT01354522

ICDi	Breast	Recruiting	n.a.	EBRT	X			Combined with aspirin, cyclophosphamide and methotrexate	NCT01612247	
	CRC	Not yet recruiting	II	EBRT	X			Combined with 5-FU as preoperative intervention, followed by FOLFOX	NCT01749956	
		Recruiting	I/II	EBRT	X			Combined with capecitabine or 5-FU, hyperthermia and oxaliplatin	NCT01716949	
		Recruiting	II	3D-CRT IMRT			X	X	Combined with FOLFOXIRI	NCT01333709
		Recruiting	II	EBRT	X				Combined with FOLFOX	NCT01269229
		Recruiting	II	EBRT				X	Combined with CAPOX	NCT01643070
		Recruiting	II	ERBT	X				Combined with FOLFOX	NCT01659424
		Recruiting	II	ERBT				X	Combined with FOLFOX	NCT01274962
		Recruiting	II/III	3D-CRT IMRT		X			Upon neoadjuvant FOLFOX, combined with chemotherapy	NCT01515787
		Recruiting	III	EBRT		X			Followed by CAPOX + surgery	NCT01558921
		Recruiting	III	EBRT				X	Combined with capecitabine ± oxaliplatin	NCT01653301
	Recruiting	III	EBRT				X	Combined with capecitabine and FOLFOX or FOLFOXIRI	NCT01804790	
	Gastroesophageal	Active not recruiting	I	EBRT	X				Combined with erlotinib, 5-FU and oxaliplatin as neoadjuvant regimen, followed by surgery and consolidation chemotherapy	NCT01561014
		Not yet recruiting	II	EBRT	X				Combined with 5-FU, lapatinib and oxaliplatin	NCT01769508
		Not yet recruiting	II	EBRT				X	Combined with CAPOX ± carboplatin and paclitaxel	NCT01843829
		Recruiting	II	3D-CRT IMRT				X	Combined with FOLFOX or carboplatin + paclitaxel	NCT01333033
		Recruiting	II	EBRT		X			Combined with platin-based chemotherapy	NCT01362127
		Recruiting	II	EBRT				X	As single agent or combined with oxaliplatin and raltitrexid	NCT01732380

ICDi	Gastroesophageal	Recruiting	II/III	EBRT	X		Combined with 5-FU, docetaxel and oxaliplatin	NCT01523015
		Recruiting	III	EBRT	X		Combined with CAPOX as preoperative intervention	NCT01815853
		Recruiting	III	EBRT	X		Combined with CAPOX	NCT01711242
		Recruiting	III	EBRT	X		Combined with oxaliplatin and S-1	NCT01761461
		Not yet recruiting	III	EBRT		X	Combined with ABVD or BEACOPP	NCT01652261
		Recruiting	II	EBRT IFRT	X		Combined with ABVD-BEACOPP	NCT01468740
		Recruiting	II	EBRT IFRT	X		Combined with MBVD	NCT01523847
		Recruiting	II	INRT	X		Combined with ABVD-BEACOPP	NCT01390584
		Recruiting	III	EBRT		X	Combined with ABVE-PC	NCT01858922
		Recruiting	III	EBRT		X	Combined with cyclophosphamide-based chemotherapy ± hydrocortisone sodium succinate and vincristine	NCT01406756
		Recruiting	III	IFRT INRT	X	X	Combined with ABVD-BEACOPP	NCT01356680
		Recruiting	n.a.	n.s.	X		Combined with ABVD and brentuximab	NCT01578967
		Not yet recruiting	II	PBRT	X		Combined with FOLFOXIRI and losartan	NCT01821729
		Recruiting	II	EBRT	X		Combined with FOLFOXIRI and capecitabine	NCT01397019
		Recruiting	II	EBRT	X		Combined with FOLFOXIRI and gemcitabine-based chemotherapy	NCT01560949
		Recruiting	II	EBRT		X	Following FOLFOXIRI	NCT01726582
		Recruiting	II	IMRT	X		Combined with FOLFOXIRI and gemcitabine	NCT01661088
		Recruiting	II	PBRT	X		Combined with capecitabine and FOLFOXIRI	NCT01591733
		Recruiting	II	PBRT	X		Combined with CAPOX + erlotinib and gemcitabine	NCT01683422

ICDi	Pancreatic	Recruiting	II	SIRT	X	As ⁹⁰ Y-based RE, combined with FOLFOX	NCT01581307	
		Recruiting	III	EBRT		X	Combined with FOLFOXIRI and gemcitabine as induction therapy	NCT01827553
		Recruiting	III	EBRT		X	Combined with FOLFOXIRI, 5-FU and gemcitabine	NCT01836432
		Recruiting	n.a.	EBRT	X		Combined with gemcitabine and FOLFOXIRI	NCT01821612
		Recruiting	n.a.	IORT		X	Combined with FOLFOXIRI	NCT01760694
		Recruiting	n.a.	SBRT		X	Combined with FOLFOXIRI ± cyclophosphamide	NCT01595321
	Sarcoma	Recruiting	II	EBRT	X		Combined with cyclophosphamide-containing chemotherapy	NCT01696669
		Recruiting	II	EBRT		X	Combined with cyclophosphamide-containing chemotherapy	NCT01864109
		Recruiting	n.a.	EBRT		X	Combined with doxorubicin and ifosfamide ± pazopanib	NCT01446809
	Other	Active not recruiting	IV	SIRT		X	As ⁹⁰ Y-based RE	NCT01798160
		Recruiting	II	SIRT		X	As ⁹⁰ Y-based RE	NCT01381211
		Recruiting	IV	SIRT		X	As ⁹⁰ Y-based RE	NCT01798147
		Recruiting	n.a.	EBRT		X	Combined with cyclophosphamide, dactinomycin and vincristine ± doxorubicin and ifosfamide	NCT01464606
mAb	Breast	Recruiting	0	SIRT	X	¹¹¹ In-conjugated anti-ERBB2 mAb	NCT01445054	
		Recruiting	III	EBRT		X	Combined with trastuzumab	NCT01772472
		Recruiting	n.a.	EBRT		X	Combined with fresolimumab	NCT01401062
	CNS Neuroectodermal	Recruiting	I	HSRS	X		Combined with bevacizumab	NCT01392209
		Recruiting	I	WBRT	X		Combined with bevacizumab	NCT01332929
		Recruiting	I/II	EBRT	X		Combined with minocycline and bevacizumab	NCT01580969

mAb	CNS Neuroectodermal	Recruiting	II	3D-CRT IMRT PBRT	X	Combined with bevacizumab	NCT01730950	
		Recruiting	II	EBRT	X	Combined with temozolomide and bevacizumab	NCT01740258	
		Recruiting	II	EBRT		X	Combined with bevacizumab	NCT01443676
		Recruiting	II	EBRT		X	Combined with temozolomide and bevacizumab	NCT01390948
		Recruiting	II	HSRS	X		Combined with temozolomide and bevacizumab	NCT01478321
		Recruiting	III	EBRT	X		Combined with bevacizumab	NCT01860638
		Recruiting	II	PRDR		X	Combined with bevacizumab	NCT01743950
		Unknown	0	EBRT	X		Combined with bevacizumab	NCT01331616
	CRC	Recruiting	I	EBRT	X		Combined with capecitabine and baviximab	NCT01634685
		Recruiting	I	EBRT	X		Combined with 5-FU, mitomycin and cetuximab	NCT01621217
		Recruiting	I/II	EBRT	X		Combined with 5-FU, mitomycin and panitumumab	NCT01581840
		Recruiting	II	EBRT	X		Combined with 5-FU, mitomycin and panitumumab	NCT01285778
		Recruiting	II	EBRT IMRT IGRT	X		Combined with capecitabine and bevacizumab	NCT01759238
		Recruiting	II	IMRT	X		Combined with capecitabine, mitomycin and panitumumab	NCT01843452
		Recruiting	II	SBRT	X		Combined with bevacizumab	NCT01569984
Gastroesophageal	Active not recruiting	II	IMRT	X		Combined with nimotuzumab	NCT01463605	
	Active not recruiting	II/III	EBRT		X	Combined with 5-FU, cisplatin and nimotuzumab	NCT01249352	
	Recruiting	II	EBRT		X	Combined with 5-FU and cisplatin ± cetuximab	NCT01787006	

mAb	Gastroesophageal	Recruiting	II/III	EBRT		X	Combined with nimotuzumab	NCT01402180
		Recruiting	I	SIRT	X		⁹⁰ Y-conjugated anti-CD45 mAb followed by allo-PBSCT, cyclosporine and MMf	NCT01300572
		Recruiting	I	SIRT	X		⁹⁰ Y-conjugated anti-CD45 mAb followed by allo-PBSCT, cyclosporine and MMf	NCT01503242
		Recruiting	I/II	EBRT	X		Combined with ipilimumab	NCT01769222
		Recruiting	II	EBRT		X	Combined with standard chemotherapy + rituximab	NCT01399372
		Recruiting	II	EBRT SIRT	X		⁹⁰ Y-conjugated anti-CD20 mAb or EBRT combined with allo-HSCT, ATG, cyclosporine, MMf and rituximab	NCT01811368
	Hematological	Recruiting	II	SIRT	X		¹³¹ I-conjugated anti-CD20 mAb combined with belinostat and rituximab	NCT01686165
		Recruiting	II	SIRT	X		¹³¹ I-conjugated anti-CD20 mAb combined with methotrexate	NCT01389076
		Recruiting	II	SIRT	X		¹³¹ I-conjugated anti-CD20 mAb combined with velcade and rituximab	NCT01497275
		Recruiting	II	SIRT	X		⁹⁰ Y-conjugated anti-CD20 mAbs	NCT01434472
		Recruiting	III	EBRT IFRT		X	Combined with vincristine and rituximab	NCT01478542
		Recruiting	n.a.	EBRT		X	As single agent or combined with rituximab	NCT01473628
		Active not recruiting	II	IMRT		X	Combined with cetuximab or cisplatin + docetaxel	NCT01614938
		Completed	I	EBRT	X		Combined with bortezomib and cetuximab ± cisplatin	NCT01445405
	HNC	Not yet recruiting	II	EBRT		X	Combined with nimotuzumab	NCT01345084
		Not yet recruiting	III	EBRT		X	Combined with cisplatin or cetuximab	NCT01855451
		Recruiting	I	EBRT	X		Combined with MLN8237 and cetuximab	NCT01540682
		Recruiting	I	EBRT	X		Combined with olaparib and cetuximab	NCT01758731

mAb	HNC	Recruiting	I	IMRT	X		Combined with cetuximab and ipilimumab	NCT01860430	
		Recruiting	I/II	EBRT	X			Combined with cisplatin and cetuximab	NCT01760811
		Recruiting	I/II	EBRT	X			Combined with EGFR-targeting antisense DNA and cetuximab	NCT01592721
		Recruiting	I/II	IMRT	X			Combined with cetuximab	NCT01712919
		Recruiting	II	3D-CRT	X			Combined with cisplatin or cetuximab	NCT01472653
		Recruiting	II	EBRT	X			Upon TPE-A, in combination with cisplatin, cetuximab and bevacizumab	NCT01588431
		Recruiting	II	EBRT	X			Combined with carboplatin, cisplatin and cetuximab	NCT01326923
		Recruiting	II	EBRT	X			Combined with docetaxel and cetuximab	NCT01794845
		Recruiting	II	EBRT	X			Combined with cisplatin, docetaxel and cetuximab	NCT01440270
		Recruiting	II	EBRT			X	Combined with cisplatin and cetuximab	NCT01435252
		Recruiting	II	EBRT			X	Combined with cisplatin or cetuximab	NCT01504815
		Recruiting	II	IMRT	X			Combined with cetuximab	NCT01271439
		Recruiting	II	IMRT	X			Combined with cisplatin and cetuximab upon ACF induction therapy	NCT01566435
		Recruiting	II	IMRT	X			Combined with 5-FU, cisplatin, docetaxel and cetuximab	NCT01326559
		Recruiting	II	IMRT			X	Combined with cisplatin, docetaxel and nimotuzumab	NCT01516996
		Recruiting	II/III	EBRT	X			Combined with cisplatin, docetaxel and cetuximab	NCT01434394
		Recruiting	II/III	IMRT			X	Combined with cetuximab and cisplatin and/or docetaxel	NCT01810913
		Recruiting	III	EBRT			X	Combined with carboplatin ± cetuximab	NCT01706939
		Recruiting	III	EBRT			X	Combined with cisplatin ± nimotuzumab	NCT00957086
		Recruiting	III	IMRT			X	Combined with cetuximab	NCT01311063

mAb	HNC	Recruiting	III	IMRT		X	Combined with cisplatin or cetuximab	NCT01302834	
		Recruiting	IV	3D-CRT IMRT		X		Combined with cetuximab	NCT01553032
		Recruiting	n.a.	EBRT	X			Combined with cetuximab	NCT01663259
		Recruiting	n.a.	EBRT			X	Combined with cisplatin or cetuximab	NCT01790516
		Unknown	II	EBRT			X	Combined with cisplatin ± cetuximab	NCT01301248
	Melanoma	Active not recruiting	I	EBRT	X			Combined with ipilimumab	NCT01557114
		Recruiting	0	SIRT	X			Combined with ipilimumab	NCT01730157
		Recruiting	I	SRS WBRT		X		Combined with ipilimumab	NCT01703507
		Recruiting	I/II	SBRT	X			Combined with ipilimumab	NCT01497808
		Recruiting	II	EBRT		X		Combined with ipilimumab	NCT01689974
		Recruiting	II	SART	X			Combined with ipilimumab	NCT01565837
		Recruiting	n.a.	EBRT	X			Combined with ipilimumab	NCT01449279
	Pancreatic	Active not recruiting	I	3D-CRT			X	Combined with capecitabine, ganitumab and gemcitabine	NCT01298401
	Other	Recruiting	I	Brachytherapy EBRT	X			Combined with cisplatin and ipilimumab	NCT01711515
Recruiting		II	EBRT	X			Combined with panitumumab	NCT01634880	
OV	HNC	Recruiting	I	EBRT	X		Combined with cisplatin and vaccinia virus	NCT01584284	
TLRAs	Breast	Recruiting	I/II	EBRT	X		Combined with imiquimod	NCT01421017	
	CRC	Recruiting	II	SBRT	X		Combined with IMM-101	NCT01539824	
	Hematological	Recruiting	I	EBRT	X		Combined with SD-101	NCT01745354	
	HNC	Not yet recruiting	I	IMRT	X		Combined with cisplatin and entolimod	NCT01728480	
Vaccine	CNS Neuroectodermal	Active not recruiting	I	EBRT	X		Combined with multi-peptide vaccine	NCT01222221	

Combinatorial	Breast	Recruiting	II	EBRT	X	Combined with cyclophosphamide, doxorubicin, paclitaxel and trastuzumab	NCT01750073	
		Recruiting	II	EBRT	X	Combined with cyclophosphamide, doxorubicin, paclitaxel, pertuzumab and trastuzumab	NCT01796197	
		Recruiting	n.a.	EBRT		X	Combined with docetaxel and epirubicin ± cyclophosphamide, hormone therapy and trastuzumab	NCT01503905
	CNS Neuroectodermal	Not yet recruiting	II	EBRT	X		As consolidation therapy upon PBSCT	NCT01857934
		Not yet recruiting	II/III	IGRT	X		Combined with busulfan and melphalan, as consolidation therapy upon auto-HSCT	NCT01798004
		Recruiting	n.a.	EBRT	X		Combined with auto-PBSCT, carboplatin, etoposide, G-CSF, isotretinoin and melphalan	NCT01526603
	CRC	Active not recruiting	II	EBRT	X		Combined with bevacizumab, capecitabine and oxaliplatin	NCT01434147
		Active not recruiting	II	EBRT	X		Combined with bevacizumab, FOLFOX and raltitrexed	NCT01481545
		Active not recruiting	II	SIRT	X		⁹⁰ Y-conjugated anti-CEA mAb combined with FOLFIRI or FOLFOX ± bevacizumab	NCT01320683
		Recruiting	I	IMRT	X		Combined with bevacizumab and FOLFOX	NCT01395667
		Recruiting	II	EBRT	X		Combined with 5-FU, bevacizumab and oxaliplatin	NCT01554059
		Recruiting	II	IMRT	X		Combined with bevacizumab and CAPOX	NCT01818973
		Recruiting	III	SIRT		X	Combined with FOLFOX	NCT01721954
		Recruiting	n.a.	SBRT		X	Combined with CAPOX or FOLFOX + bevacizumab	NCT01792934
		Recruiting	II	EBRT		X	Combined with 5-FU, capecitabine, cyclophosphamide and peptide vaccine	NCT01507103
Gastroesophageal	Recruiting	I	EBRT	X		Combined with carboplatin, CAPOX, cetuximab, everolimus and paclitaxel	NCT01490749	

Combinatorial	Gastroesophageal	Recruiting	II	EBRT	X	Combined with capecitabine, oxaliplatin and trastuzumab	NCT01748773		
		Recruiting	II	EBRT	X	Combined with FOLFOX and panitumumab	NCT01307956		
		Recruiting	n.a.	3D-CRT IMRT		X	Combined with cisplatin and paclitaxel ± DC-CIK cells	NCT01691625	
	Hematological	Recruiting	I	SIRT	X		⁹⁰ Y-conjugated anti-CD45 mAb followed by auto-PBSCT	NCT01678443	
		Recruiting	II	EBRT	X		Combined with conventional chemotherapy + rituximab	NCT01290120	
		Recruiting	II	EBRT IFRT		X	Combined with rituximab as consolidation regimen upon chemoimmunotherapy	NCT01516593	
		Recruiting	II	IFRT SIRT	X		Combined with R-CHOP regimen and ⁹⁰ Y-conjugated anti-CD20 mAb	NCT01359592	
		HNC	Recruiting	II	3D-CRT IGRT IMRT	X		Combined with cetuximab, cisplatin, docetaxel, erythropoietin, folinic acid, 5-FU and G-CSF	NCT01467115
		Pancreatic	Active not recruiting	I	EBRT	X		Combined with gemcitabine, GM-CSF, tadalafil and a telomerase-specific vaccine	NCT01342224
	Recruiting		I	SBRT	X		Combined with FOLFOXIRI and G-CSF	NCT01446458	
	Prostate	Recruiting	II	EBRT		X	Combined with ADT or L-BLP25	NCT01496131	
	Sarcoma	Recruiting	I	EBRT	X		Combined with doxorubicin and bevacizumab	NCT01746238	
	Other	Recruiting	I	EBRT	X		Combined with autologous CD8 ⁺ T cells, IFN β and IL-2	NCT01758458	
		Recruiting	I/II	EBRT		X	Combined with peptide vaccine + hiltonol	NCT01720836	
		Recruiting	n.a.	EBRT	X		As maintenance therapy upon auto-HSCT	NCT01505569	

Abbreviations: 3D-CRT, 3D conformal RT; 5-FU, 5-fluorouracil; ABVD, doxorubicin, bleomycin, vinblastine, dacarbazine; ACF, paclitaxel, cisplatin and 5-FU; ACT, adoptive cell transfer; ADT, androgen-deprivation therapy; ATG, anti-thymocyte globulin; BEACOPP, bleomycin, etoposide, doxorubicin, cyclophosphamide, vincristine, procarbazine, prednisone; CAPOX, capecitabine, oxaliplatin; CNS, central nervous system; CRC, colorectal carcinoma; DC, dendritic cell; DC-CIK, dendritic and cytokine-

induced killer; EBRT, external beam RT; EGFR, epidermal growth factor receptor; FOLFIRI, folinic acid, 5-FU, irinotecan; FOLFOX, folinic acid, 5-FU, oxaliplatin; FOLFOXIRI, folinic acid, 5-FU, oxaliplatin, irinotecan; G-CSF, granulocyte colony-stimulating factor; GM-CSF, granulocyte macrophage colony-stimulating factor; HNC, head and neck carcinoma; HSCT, hematopoietic stem cell transplantation; HSRS, hypofractionated stereotactic radiosurgery; ICDi, immunogenic cell death inducer; IFN, interferon; IFRT, involved field radiotherapy; IGRT, image guided RT; IL, interleukin; IMRT, intensity-modulated RT; INRT, involved nodal RT; IORT, intraoperative RT; mAb, monoclonal antibody; MIBG, metaiodobenzylguanidine; MMf, mycophenolate mofetil; n.a., not available, n.s., not specified; OV, oncolytic virus; PBRT, proton beam RT; PBSCT, peripheral blood stem cell transplantation; PRDR, pulse reduced dose rate radiation; R-CHOP, cyclophosphamide, doxorubicin hydrochloride, vincristine sulfate, prednisone, rituximab; RE, radioembolization; RT, radiation therapy; SART, stereotactic ablative RT; SBRT, stereotactic body RT; SIRT, selective internal RT; SRS, stereotactic radiosurgery; TAC, docetaxel, doxorubicin, cyclophosphamide; TCX, docetaxel, cyclophosphamide, capecitabine; TPE-A, docetaxel, cisplatin, cetuximab, bevacizumab; TLRA, Toll-like receptor agonist; VEGF, vascular endothelial growth factor; WBRT, whole-brain RT. *started after 2011 January, 1st and not withdrawn, terminated or suspended at the day of submission (source www.clinicaltrials.gov).