

Clinical trials of multi target TKI for renal-cell carcinoma (advanced) in all type of patients

TrialResults-center www.trialresultscenter.org

1 TKI

Trial	Treatments	Patients	Trials design and methods
apitolisib vs everolimus			
Powles , 2014 n=NA	-	-	
BNC105P + everolimus vs everolimus			
Disruptor-1 n=NA	-	-	
lenvatinib vs everolimus			
Motzer , 2015 <i>ongoing</i> [NCT01136733] n=NA follow-up:	-	subjects with unresectable advanced or metastatic renal cell carcinoma following one prior VEGF-targeted treatment	
sorafenib vs interferon alpha			
Escudier , 2009 n=97/92 follow-up:	oral sorafenib 400 mg twice daily versus subcutaneous IFN-2a 9 million U three times weekly	patients with untreated, advanced renal cancer.	Parallel groups
sunitinib vs interferon alpha			
Motzer , 2007 [NCT00083889] n=375/375 follow-up:	repeated 6-week cycles of sunitinib (at a dose of 50 mg given orally once daily for 4 weeks, followed by 2 weeks without treatment) versus interferon alfa (at a dose of 9 MU given subcutaneously three times weekly).	patients with previously untreated, metastatic renal-cell carcinoma	
pazopanib vs placebo			
Sternberg , 2010 n=NA follow-up:	pazopanib versus placebo	treatment-naive and cytokine-pretreated patients with advanced renal cell carcinoma	Parallel groups double-blind
VEG105192 , 2010 [NCT00334282] n=290/145 follow-up:	-	treatment-naive and cytokine-pretreated patients with advanced renal cell carcinoma	
sorafenib vs placebo			

continued...

Trial	Treatments	Patients	Trials design and methods
TARGET , 2007 [NCT00073307] n=451/452 follow-up:	continuous treatment with oral sorafenib (at a dose of 400 mg twice daily) versus placebo	patients with renal-cell carcinoma that was resistant to standard therapy	Parallel groups
Ratain , 2006 n=NA follow-up:	-	patients with metastatic renal cell carcinoma	
axitinib vs sorafenib			
AXIS (Rini) , 2011 [NCT00678392] n=NA follow-up:	-	second-line therapy in patients with metastatic renal cell cancer	
Qin , 2012 n=NA	-	-	
dovitinib vs sorafenib			
GOLD [NCT01223027] n=284/286 follow-up:	dovitinib (500 mg orally according to a 5-days-on and 2-days-off schedule) versus sorafenib (400 mg orally twice daily)	patients with clear cell metastatic renal cell carcinoma who received one previous VEGF-targeted therapy and one previous mTOR inhibitor	open-label
sunitinib vs sorafenib			
SWITCH [NCT00732914] n=NA	-	-	
tivozanib vs sorafenib			
TIVO-1 , 2013 [NCT01030783] n=260/257 follow-up:	tivozanib versus sorafenib	initial targeted therapy in patients with metastatic renal cell carcinoma	
pazopanib vs sunitinib			
COMPARZ , 2013 [NCT00720941] n=557/553 follow-up:	continuous dose of pazopanib (800 mg once daily) versus sunitinib in 6-week cycles (50 mg once daily for 4 weeks, followed by 2 weeks without treatment)	patients with clear-cell, metastatic renal-cell carcinoma, first line	Parallel groups

References

Powles, 2014:

Disruptor-1, :

Motzer, 2015:

Escudier, 2009:

Escudier B, Szczylik C, Hutson TE, Demkow T, Staehler M, Rolland F, Negrier S, Laferriere N, Scheuring UJ, Cella D, Shah S, Bukowski RM Randomized phase II trial of first-line treatment with sorafenib versus interferon Alfa-2a in patients with metastatic renal cell carcinoma. J Clin Oncol 2009;27:1280-9 [19171708]

Motzer, 2007:

Motzer RJ, Hutson TE, Tomczak P, Michaelson MD, Bukowski RM, Rixe O, Oudard S, Negrier S, Szczylik C, Kim ST, Chen I, Bycott PW, Baum CM, Figlin RA Sunitinib versus interferon alfa in metastatic renal-cell carcinoma. *N Engl J Med* 2007;356:115-24 [[17215529](#)]

Cella D, Li JZ, Cappelleri JC, Bushmakina A, Charbonneau C, Kim ST, Chen I, Motzer RJ, Quality of life in patients with metastatic renal cell carcinoma treated with sunitinib or interferon alfa: results from a phase III randomized trial. *J Clin Oncol* 2008;26:3763-9. [[18669464](#)] [10.1200/JCO.2007.13.5145](#)

Motzer RJ, Hutson TE, Tomczak P, Michaelson MD, Bukowski RM, Oudard S, Negrier S, Szczylik C, Pili R, Bjarnason GA, Garcia-del-Muro X, Sosman JA, Solska E, Wilding G, Thompson JA, Kim ST, Chen I, Huang X, Figlin RA, Overall survival and updated results for sunitinib compared with interferon alfa in patients with metastatic renal cell carcinoma. *J Clin Oncol* 2009;27:3584-90. [[19487381](#)] [10.1200/JCO.2008.20.1293](#)

Sternberg, 2010:

Sternberg CN, Davis ID, Mardiak J, Szczylik C, Lee E, Wagstaff J, Barrios CH, Salman P, Gladkov OA, Kavina A, Zarb JJ, Chen M, McCann L, Pandite L, Roychowdhury DF, Hawkins RE Pazopanib in locally advanced or metastatic renal cell carcinoma: results of a randomized phase III trial. *J Clin Oncol* 2010;28:1061-8 [[20100962](#)]

VEG105192, 2010:

Sternberg CN, Davis ID, Mardiak J, Szczylik C, Lee E, Wagstaff J, Barrios CH, Salman P, Gladkov OA, Kavina A, Zarb JJ, Chen M, McCann L, Pandite L, Roychowdhury DF, Hawkins RE Pazopanib in locally advanced or metastatic renal cell carcinoma: results of a randomized phase III trial. *J Clin Oncol* 2010;28:1061-8 [[20100962](#)]

Sternberg CN, Hawkins RE, Wagstaff J, Salman P, Mardiak J, Barrios CH, Zarba JJ, Gladkov OA, Lee E, Szczylik C, McCann L, Rubin SD, Chen M, Davis ID A randomised, double-blind phase III study of pazopanib in patients with advanced and/or metastatic renal cell carcinoma: final overall survival results and safety update. *Eur J Cancer* 2013;49:1287-96 [[23321547](#)]

TARGET, 2007:

Escudier B, Eisen T, Stadler WM, Szczylik C, Oudard S, Staehler M, Negrier S, Chevreau C, Desai AA, Rolland F, Demkow T, Hutson TE, Gore M, Anderson S, Hoflana G, Shan M, Pena C, Lathia C, Bukowski RM Sorafenib for treatment of renal cell carcinoma: Final efficacy and safety results of the phase III treatment approaches in renal cancer global evaluation trial. *J Clin Oncol* 2009;27:3312-8 [[19451442](#)] [10.1200/JCO.2008.19.5511](#)

Escudier B, Eisen T, Stadler WM, Szczylik C, Oudard S, Siebels M, Negrier S, Chevreau C, Solska E, Desai AA, Rolland F, Demkow T, Hutson TE, Gore M, Freeman S, Schwartz B, Shan M, Simantov R, Bukowski RM Sorafenib in advanced clear-cell renal-cell carcinoma. *N Engl J Med* 2007;356:125-34 [[17215530](#)] [10.1056/NEJMoa060655](#)

Escudier B, Eisen T, Stadler WM, Szczylik C, Oudard S, Staehler M, Negrier S, Chevreau C, Desai AA, Rolland F, Demkow T, Hutson TE, Gore M, Anderson S, Hoflana G, Shan M, Pena C, Lathia C, Bukowski RM Sorafenib for treatment of renal cell carcinoma: Final efficacy and safety results of the phase III treatment approaches in renal cancer global evaluation trial. *J Clin Oncol* 2009;27:3312-8 [[19451442](#)]

Ratain, 2006:

Ratain MJ, Eisen T, Stadler WM, Flaherty KT, Kaye SB, Rosner GL, Gore M, Desai AA, Patnaik A, Xiong HQ, Rowinsky E, Abbruzzese JL, Xia C, Simantov R, Schwartz B, O'Dwyer PJ Phase II placebo-controlled randomized discontinuation trial of sorafenib in patients with metastatic renal cell carcinoma. *J Clin Oncol* 2006;24:2505-12 [[16636341](#)] [10.1200/JCO.2005.03.6723](#)

AXIS (Rini), 2011:

Rini BI, Escudier B, Tomczak P, Kaprin A, Szczylik C, Hutson TE, Michaelson MD, Gorbunova VA, Gore ME, Rusakov IG, Negrier S, Ou YC, Castellano D, Lim HY, Uemura H, Tarazi J, Cella D, Chen C, Rosbrook B, Kim S, Motzer RJ Comparative effectiveness of axitinib versus sorafenib in advanced renal cell carcinoma (AXIS): a randomised phase 3 trial. *Lancet* 2011;378:1931-9 [[22056247](#)]

Qin, 2012:

GOLD, :

Motzer RJ, Porta C, Vogelzang NJ, Sternberg CN, Szczylik C, Zolnierok J, Kollmannsberger C, Rha SY, Bjarnason GA, Melichar B, De Giorgi U, Grnwald V, Davis ID, Lee JL, Esteban E, Urbanowitz G, Cai C, Squires M, Marker M, Shi MM, Escudier B Dovitinib versus sorafenib for third-line targeted treatment of patients with metastatic renal cell carcinoma: an open-label, randomised phase 3 trial. *Lancet Oncol* 2014;15:286-96 [[24556040](#)] [10.1016/S1470-2045\(14\)70030-0](#)

SWITCH, :

Calvani N, Morelli F, Leo S, Orlando L, Lombardi L, Gnani A, Cinefra M, Maiello E, Lorusso V, Cinieri S Sequential use of sorafenib and sunitinib in advanced renal cell carcinoma: does the order of sequencing matter? *Med Oncol* 2012;29:1908-13 [[21858552](#)]

TIVO-1, 2013:

Motzer RJ, Nosov D, Eisen T, Bondarenko I, Lesovoy V, Lipatov O, Tomczak P, Lyulko O, Alyasova A, Harza M, Kogan M, Alekseev BY, Sternberg CN, Szczylik C, Cella D, Ivanescu C, Krivoshik A, Strahs A, Esteves B, Berkenblit A, Hutson TE Tivozanib versus sorafenib as initial targeted therapy for patients with metastatic renal cell carcinoma: results from a phase III trial. *J Clin Oncol* 2013;31:3791-9 [24019545] [10.1200/JCO.2012.47.4940](https://doi.org/10.1200/JCO.2012.47.4940)

COMPARZ, 2013:

Motzer RJ, Hutson TE, Cella D, Reeves J, Hawkins R, Guo J, Nathan P, Staehler M, de Souza P, Merchan JR, Boleti E, Fife K, Jin J, Jones R, Uemura H, De Giorgi U, Harmenberg U, Wang J, Sternberg CN, Deen K, McCann L, Hackshaw MD, Crescenzo R, Pandite LN, C Pazopanib versus sunitinib in metastatic renal-cell carcinoma. *N Engl J Med* 2013;369:722-31. [23964934] [10.1056/NEJMoa1303989](https://doi.org/10.1056/NEJMoa1303989)

2 VEGFR, MET AXL TKI

Trial	Treatments	Patients	Trials design and methods
cabozantinib vs everolimus			
METEOR , 2015 [NCT01865747] n=330/328 follow-up:	cabozantinib at a dose of 60 mg daily versus everolimus at a dose of 10 mg daily	patients with renal-cell carcinoma that had progressed after VEGFR-targeted therapy	Parallel groups open-label
cabozantinib vs sunitinib			
CABOSUN , 2017 [NCT01835158] n=79/78 follow-up:	cabozantinib (60 mg once per day) versus sunitinib (50 mg once per day; 4 weeks on, 2 weeks off).	untreated clear cell mRCC and Eastern Cooperative Oncology Group performance status of 0 to 2 and were intermediate or poor risk per International Metastatic Renal Cell Carcinoma Database Consortium criteria	Parallel groups open-label

References

METEOR, 2015:

Choueiri TK, Escudier B, Powles T, Mainwaring PN, Rini BI, Donskov F, Hammers H, Hutson TE, Lee JL, Peltola K, Roth BJ, Bjarnason GA, Gazi L, Keam B, Maroto P, Heng DY, Schmidinger M, Kantoff PW, Borgman-Hagey A, Hessel C, Scheffold C, Schwab GM, Tannir Cabozantinib versus Everolimus in Advanced Renal-Cell Carcinoma. *N Engl J Med* 2015 Sep 25;: [26406150] [10.1056/NEJMoa1510016](https://doi.org/10.1056/NEJMoa1510016)

CABOSUN, 2017:

Choueiri TK, Halabi S, Sanford BL, Hahn O, Michaelson MD, Walsh MK, Feldman DR, Olencki T, Picus J, Small EJ, Dakhil S, George DJ, Morris MJ Cabozantinib Versus Sunitinib As Initial Targeted Therapy for Patients With Metastatic Renal Cell Carcinoma of Poor or Intermediate Risk: The Alliance A031203 CABOSUN Trial. *J Clin Oncol* 2017;35:591-597 [28199818]

3 About TrialResults-center.org

TrialResults-center is an innovative knowledge database that collects the results of RCTs and provides dynamic interactive systematic reviews and meta-analysis in the field of all major heart and vessels diseases.

The TrialResults-center database provides a unique view of the treatment efficacy based on all data provided directly from clinical trial results, offering a valuable alternative to personal bibliographic search, published meta-analysis, etc. Furthermore, it would allow comparing easily the various concurrent

therapeutic for the same clinical condition.

Rigorous meta-analysis method is used to populate TrialResults-center: widespread search of published and non published trials, study selection using pre-specified criteria, data extraction using standard form.

TrialResults-center is continually updated on a weekly basis. We continually search all new results (whatever their publication channel) and these news results are immediately added to the database with a maximum of 1 week.

TrialResults-center is non-profit and self-funded.