

Clinical trials of cell-based therapies for heart failure in all types of patients

TrialResults-center www.trialresultscenter.org

1 bone marrow derived stem cell

Trial	Treatments	Patients	Trials design and methods
Mesenchymal stem cells vs allogeneic mesenchymal stem cells			
POSEIDON , 2012 [NCT01087996] n=NA follow-up:	allogeneic MSCs versus autologous bone marrowderived mesenchymal stem cells delivered by transendocardial injection	patients with LV dysfunction due to ICM	
Bone marrow derived stem cell vs control			
CUPID 2b , 2016 [NCT01643330] n=NA follow-up:	-	patients with advanced heart failure	
FOCUS-CCTR N , 2012 [NCT00824005] n=92 follow-up:	-	patients with chronic ischemic heart failure	
Pokushalov (DOUBLON DIB) , 2010 n=55/54 follow-up:	Intramyocardial transplantation of autologous bone marrow mononuclear cells versus optimal medical therapy	patients with severe ischemic heart failure	Russia
Bone marrow mononuclear cells vs control			
Ang , 2008 n=NA	-	Elective CABG patients with established myocardial scars diagnosed as akinetic or dyskinetic segments by dobutamine stress echocardiography and confirmed at surgery	single-blinded
Hendriks , 2006 n=NA follow-up: 4 months	-	patients with a postinfarction nonviable scar	
TOPCARE-CHD , 2006 [NCT00289822] n=NA	-	patients with stable ischemic heart disease who had had a myocardial infarction at least 3 months previously	
Yao , 2008 n=24/23	-	patients with stable ischaemic heart disease due to a previous MI	
Bone marrow progenitor cells vs control			
Manginas , 2007 n=NA	-	patients with old, nonviable anterior myocardial infarction	

continued...

Trial	Treatments	Patients	Trials design and methods
Patel , 2005 n=10/10	-	patients with ischemic cardiomyopathy and an ejection fraction of less than 35% who were scheduled for primary off-pump coronary artery bypass grafting	
Perin , 2012 n=10/10 follow-up: 6 months	-	patients with advanced ischemic heart failure	
Vrtovec , 2011 [NCT00629018] n=NA	-	patients with dilated cardiomyopathy	
Vrtovec , 2013 [NCT01350310] n=55/55	-	patients with dilated cardiomyopathy	
Stem cells vs control			
TAC-HFT , 2014 [NCT00768066] n=NA follow-up:	transendocardial injection of bone marrow-derived progenitor cells versus placebo	Patients With Chronic Ischemic Left Ventricular Dysfunction and Heart Failure Secondary to Myocardial Infarction	
Bone marrow derived stem cell vs placebo			
ABCD , 2010 n=24/20 follow-up:	-	Patients with nonischemic dilated cardiomyopathy	
INCL , 2015 [NCT00333827] n=NA follow-up: 6 months	bone marrow derived stem cell versus placebo	patients with dilated cardiomyopathy and heart failure in NYHA class III or IV	Parallel groups double blind Brazil
Bone marrow mononuclear cells vs placebo			
FOCUS-HF , 2011 [NCT00203203.] n=20/10 follow-up: 6 mo	-	patients with chronic HF	
Bone marrow derived stem cell vs sham			
C41750/3100 <i>ongoing</i> [NCT02032004] n=NA follow-up:	-	-	

References

POSEIDON, 2012:

Hare JM, Fishman JE, Gerstenblith G, Difeo Velazquez DL, Zambrano JP, Suncion VY, Tracy M, Ghersin E, Johnston PV, Brinker JA, Breton E, Davis-Sproul J, Schulman IH, Byrnes J, Mendizabal AM, Lowery MH, Rouy D, Altman P, Wong Po Foo C, Ruiz P, Amador A, D Comparison of Allogeneic vs Autologous Bone Marrow-Derived Mesenchymal Stem Cells Delivered by Transendocardial Injection in Patients With Ischemic Cardiomyopathy: The POSEIDON Randomized Trial. JAMA 2012 Nov 6;:1-11 [23117550] [10.1001/jama.2012.25321](https://doi.org/10.1001/jama.2012.25321)

CUPID 2b, 2016:

Greenberg B, Butler J, Felker GM, Ponikowski P, Voors AA, Desai AS, Barnard D, Bouchard A, Jaski B, Lyon AR, Pogoda JM, Rudy JJ, Zsebo KM Calcium upregulation

by percutaneous administration of gene therapy in patients with cardiac disease (CUPID 2): a randomised, multinational, double-blind, placebo-controlled, phase 2b trial. *Lancet* 2016;387:1178-86 [26803443]

FOCUS-CCTRN, 2012:

Perin EC, Willerson JT, Pepine CJ, Henry TD, Ellis SG, Zhao DX, Silva GV, Lai D, Thomas JD, Kronenberg MW, Martin AD, Anderson RD, Traverse JH, Penn MS, Anwaruddin S, Hatzopoulos AK, Gee AP, Taylor DA, Cogle CR, Smith D, Westbrook L, Chen J, Handberg E, O Effect of Transendocardial Delivery of Autologous Bone Marrow Mononuclear Cells on Functional Capacity, Left Ventricular Function, and Perfusion in Chronic Heart Failure: The FOCUS-CCTRN Trial. *JAMA* 2012 Mar 24;: [22447880] 10.1001/jama.2012.418

Pokushalov (DOUBLON DIB), 2010:

Pokushalov E, Romanov A, Chernyavsky A, Larionov P, Terekhov I, Artyomenko S, Poveshenko O, Kliver E, Shirokova N, Karaskov A, Dib N Efficiency of intramyocardial injections of autologous bone marrow mononuclear cells in patients with ischemic heart failure: a randomized study. *J Cardiovasc Transl Res* 2010;3:160-8 [20560030] 10.1007/s12265-009-9123-8

Ang, 2008:

Ang KL, Chin D, Leyva F, Foley P, Kubal C, Chalil S, Srinivasan L, Bernhardt L, Stevens S, Shenje LT, Galianes M Randomized, controlled trial of intramuscular or intracoronary injection of autologous bone marrow cells into scarred myocardium during CABG versus CABG alone. *Nat Clin Pract Cardiovasc Med* 2008;5:663-70 [18711405] 10.1038/ncpcardio1321

Hendriks, 2006:

Hendriks M, Hensen K, Clijsters C, Jongen H, Koninckx R, Bijmens E, Ingels M, Jacobs A, Geukens R, Dendale P, Vijgen J, Dilling D, Steels P, Mees U, Rummens JL Recovery of regional but not global contractile function by the direct intramyocardial autologous bone marrow transplantation: results from a randomized controlled clinical trial. *Circulation* 2006;114:1101-7 [16820557] 10.1161/CIRCULATIONAHA.105.000505

TOPCARE-CHD, 2006:

Assmus B, Honold J, Schinger V, Britten MB, Fischer-Rasokat U, Lehmann R, Teupe C, Pistorius K, Martin H, Abolmaali ND, Tonn T, Dimmeler S, Zeiher AM Transcoronary transplantation of progenitor cells after myocardial infarction. *N Engl J Med* 2006;355:1222-32 [16990385] 10.1056/NEJMoa051779

Yao, 2008:

Yao K, Huang R, Qian J, Cui J, Ge L, Li Y, Zhang F, Shi H, Huang D, Zhang S, Sun A, Zou Y, Ge J Administration of intracoronary bone marrow mononuclear cells on chronic myocardial infarction improves diastolic function. *Heart* 2008;94:1147-53 [18381377] 10.1136/hrt.2007.137919

Yao K, Huang RC, Ge L, Qian JY, Li YL, Xu SK, Zhang F, Zhang YQ, Niu YH, Shi JH, Zhang SH, Fan B, Wang QB, Sun AJ, Zou YZ, Ge JB [Observation on the safety: clinical trail on intracoronary autologous bone marrow mononuclear cells transplantation for acute myocardial infarction]. *Zhonghua Xin Xue Guan Bing Za Zhi* 2006 Jul;34:577-81 [17081355]

Manginas, 2007:

Manginas A, Goussetis E, Koutelou M, Karatasakis G, Peristeri I, Theodorakos A, Leontiadis E, Plessas N, Theodosaki M, Graphakos S, Cokkinos DV Pilot study to evaluate the safety and feasibility of intracoronary CD133(+) and CD133(-) CD34(+) cell therapy in patients with nonviable anterior myocardial infarction. *Catheter Cardiovasc Interv* 2007;69:773-81 [17394248] 10.1002/ccd.21023

Patel, 2005:

Patel AN, Geffner L, Vina RF, Saslavsky J, Urschel HC Jr, Kormos R, Benetti F Surgical treatment for congestive heart failure with autologous adult stem cell transplantation: a prospective randomized study. *J Thorac Cardiovasc Surg* 2005;130:1631-8 [16308009] 10.1016/j.jtcvs.2005.07.056

Perin, 2012:

Perin EC, Silva GV, Zheng Y, Gahremanpour A, Canales J, Patel D, Fernandes MR, Keller LH, Quan X, Coulter SA, Moore WH, Herlihy JP, Willerson JT Randomized, double-blind pilot study of transendocardial injection of autologous aldehyde dehydrogenase-bright stem cells in patients with ischemic heart failure. *Am Heart J* 2012;163:415-21, 421.e1 [22424012] 10.1016/j.ahj.2011.11.020

Vrtovec, 2011:

Vrtovec B, Poglajen G, Sever M, Lezaic L, Domanovic D, Cernelc P, Haddad F, Torre-Amione G Effects of intracoronary stem cell transplantation in patients with dilated cardiomyopathy. *J Card Fail* 2011;17:272-81 [21440864] 10.1016/j.cardfail.2010.11.007

Vrtovec, 2013:

Vrtovec B, Poglajen G, Lezaic L, Sever M, Domanovic D, Cernelc P, Socan A, Schrepfer S, Torre-Amione G, Haddad F, Wu JC Effects of intracoronary CD34+ stem cell transplantation in nonischemic dilated cardiomyopathy patients: 5-year follow-up. *Circ Res* 2013;112:165-73 [23065358] 10.1161/CIRCRESAHA.112.276519

TAC-HFT, 2014:

Heldman AW, DiFede DL, Fishman JE, Zambrano JP, Trachtenberg BH, Karantalis V, Mushtaq M, Williams AR, Suncion VY, McNiece IK, Ghersin E, Soto V, Lopera G, Miki R, Willens H, Hendel R, Mitrani R, Pattany P, Feigenbaum G, Oskouei B, Byrnes J, Lowery MH, Si Transendocardial mesenchymal stem cells and mononuclear bone marrow cells for ischemic cardiomyopathy: the TAC-HFT randomized trial. *JAMA* 2014;311:62-73 [24247587]

Trachtenberg B, Velazquez DL, Williams AR, McNiece I, Fishman J, Nguyen K, Rouy D, Altman P, Schwarz R, Mendizabal A, Oskouei B, Byrnes J, Soto V, Tracy M, Zambrano JP, Heldman AW, Hare JM Rationale and design of the Transendocardial Injection of Autologous Human Cells (bone marrow or mesenchymal) in Chronic Ischemic Left Ventricular Dysfunction and Heart Failure Secondary to Myocardial Infarction (TAC-HFT) trial: A randomized, double-blind, placebo-controlled study of safety and efficacy. *Am Heart J* 2011 Mar;161:487-93 [21392602]

ABCD, 2010:

Seth S, Bhargava B, Narang R, Ray R, Mohanty S, Gulati G, Kumar L, Airan B, Venugopal P The ABCD (Autologous Bone Marrow Cells in Dilated Cardiomyopathy) trial a long-term follow-up study. *J Am Coll Cardiol* 2010 Apr 13;55:1643-4 [20378086] 10.1016/j.jacc.2009.11.070

Seth S, Narang R, Bhargava B, Ray R, Mohanty S, Gulati G, Kumar L, Reddy KS, Venugopal P Percutaneous intracoronary cellular cardiomyoplasty for nonischemic cardiomyopathy: clinical and histopathological results: the first-in-man ABCD (Autologous Bone Marrow Cells in Dilated Cardiomyopathy) trial. *J Am Coll Cardiol* 2006;48:2350-1 [17161269] 10.1016/j.jacc.2006.07.057

INCL, 2015:

Martino H, Brofman P, Greco O, Bueno R, Bodanese L, Clausell N, Maldonado JA, Mill J, Braile D, Moraes J Jr, Silva S, Bozza A, Santos B, Campos de Carvalho A Multicentre, randomized, double-blind trial of intracoronary autologous mononuclear bone marrow cell injection in non-ischaeamic dilated cardiomyopathy (the dilated cardiomyopathy arm of the MiHeart study). *Eur Heart J* 2015;36:2898-904 [26392433]

FOCUS-HF, 2011:

Perin EC, Silva GV, Henry TD, Cabreira-Hansen MG, Moore WH, Coulter SA, Herlihy JP, Fernandes MR, Cheong BY, Flamm SD, Traverse JH, Zheng Y, Smith D, Shaw S, Westbrook L, Olson R, Patel D, Gahremanpour A, Canales J, Vaughn WK, Willerson JT A randomized study of transendocardial injection of autologous bone marrow mononuclear cells and cell function analysis in ischemic heart failure (FOCUS-HF). *Am Heart J* 2011;161:1078-87.e3 [21641354] 10.1016/j.ahj.2011.01.028

Willerson JT, Perin EC, Ellis SG, Pepine CJ, Henry TD, Zhao DX, Lai D, Penn MS, Byrne BJ, Silva G, Gee A, Traverse JH, Hatzopoulos AK, Forder JR, Martin D, Kronenberg M, Taylor DA, Cogle CR, Baraniuk S, Westbrook L, Sayre SL, Vojvodic RW, Gordon DJ, Skarl Intramyocardial injection of autologous bone marrow mononuclear cells for patients with chronic ischemic heart disease and left ventricular dysfunction (First Mononuclear Cells injected in the US [FOCUS]): Rationale and design. *Am Heart J* 2010 Aug;160:215-23 [20691824]

C41750/3100, 0:

2 Cardiac stem cells

Trial	Treatments	Patients	Trials design and methods
Cardiopoietic stem cell vs control			
C CURE , 2013 [NCT00810238] n=NA follow-up:	-	patients with heart failure of ischemic origin	
CADUCEUS , 2012 [NCT00893360] n=17	-	patients with left ventricular dysfunction after myocardial infarction	

References

C CURE, 2013:

Bartunek J, Behfar A, Dolatabadi D, Vanderheyden M, Ostojic M, Dens J, El Nakadi B, Banovic M, Beleslin B, Vrolix M, Legrand V, Vrints C, Vanoverschel Cardiopoietic stem cell therapy in heart failure: the C-CURE (Cardiopoietic stem Cell therapy in heart failURE) multicenter randomized trial with lineage-specified biologics. J Am Coll Cardiol 2013;61:2329-38 [23583246]

Bartunek J, Behfar A, Dolatabadi D, Vanderheyden M, Ostojic M, Dens J, El Nakadi B, Banovic M, Beleslin B, Vrolix M, Legrand V, Vrints C, Vanoverschelde JL, Crespo-Diaz R, Homys C, Tendera M, Waldman S, Wijns W, Terzic A Cardiopoietic stem cell therapy in heart failure: the C-CURE (Cardiopoietic stem Cell therapy in heart failURE) multicenter randomized trial with lineage-specified biologics. J Am Coll Cardiol 2013;61:2329-38 [23583246]

Mielewczik M, Cole GD, Nowbar AN, Schilling R, Whinnett ZI, Bordachar P, Wilmschurst P, Chambers JC, Olshansky B, Morgan J, Israel C, Sethi AS, van Houwelingen M, Cleland JG, Schmidt G, Francis DP The C-CURE Randomized Clinical Trial (Cardiopoietic stem Cell therapy in heart failURE). J Am Coll Cardiol 2013;62:2453 [24355589]

CADUCEUS, 2012:

Makkar RR, Smith RR, Cheng K, Malliaras K, Thomson LE, Berman D, Czer LS, Marbn L, Mendizabal A, Johnston PV, Russell SD, Schuleri KH, Lardo AC, Gerstenblith G, Marbn E Intracoronary cardiosphere-derived cells for heart regeneration after myocardial infarction (CADUCEUS): a prospective, randomised phase 1 trial. Lancet 2012;379:895-904 [22336189] 10.1016/S0140-6736(12)60195-0

3 gene therapy

CT

Trial	Treatments	Patients	Trials design and methods
gene therapy vs placebo			
CUPID , 2011 n=25/14 follow-up: 6 months	SERCA2a gene therapy versus placebo	patients NYHA class 3-4 heart failure and an LVEF <35%	Parallel groups double-blind US

References

CUPID, 2011:

Jessup M, Greenberg B, Mancini D, Cappola T, Pauly DF, Jaski B, Yaroshinsky A, Zsebo KM, Dittrich H, Hajjar RJ Calcium Upregulation by Percutaneous Administration of Gene Therapy in Cardiac Disease (CUPID): A Phase 2 Trial of Intracoronary Gene Therapy of Sarcoplasmic Reticulum Ca²⁺-ATPase in Patients With Advanced Heart Failure. Circulation 2011;: [21709064] 10.1161/CIRCULATIONAHA.111.022889

Jaski BE, Jessup ML, Mancini DM, Cappola TP, Pauly DF, Greenberg B, Borow K, Dittrich H, Zsebo KM, Hajjar RJ Calcium upregulation by percutaneous administration of gene therapy in cardiac disease (CUPID Trial), a first-in-human phase 1/2 clinical trial. J Card Fail 2009;15:171-81 [19327618] 10.1016/j.cardfail.2009.01.013

4 ixmyelocel-T

Trial	Treatments	Patients	Trials design and methods
ixmyelocel-T vs control			

continued...

Trial	Treatments	Patients	Trials design and methods
Catheter-DCM , 2014 [NCT01020968] n=NA follow-up:	-	patients with dilated cardiomyopathy	
IMPACT-DCM , 2014 [NCT00765518] n=NA follow-up:	-	patients with dilated cardiomyopathy	
ixmyelocel-T vs placebo			
ixCELL-DCM , 2016 [NCT01670981] n=60/66 follow-up:	ixmyelocel-T versus placebo	patients with New York Heart Association class III or IV symptomatic heart failure due to ischaemic dilated cardiomyopathy, who had left ventricular ejection fraction 35% or less, an automatic implantable cardioverter defibrillator, and who were ineligible for revascularisation procedures	

References

Catheter-DCM, 2014:

Henry TD, Traverse JH, Hammon BL, East CA, Bruckner B, Remmers AE, Recker D, Bull DA, Patel AN Safety and efficacy of ixmyelocel-T: an expanded, autologous multi-cellular therapy, in dilated cardiomyopathy. *Circ Res* 2014;115:730-7 [25142002]

IMPACT-DCM, 2014:

Henry TD, Traverse JH, Hammon BL, East CA, Bruckner B, Remmers AE, Recker D, Bull DA, Patel AN Safety and efficacy of ixmyelocel-T: an expanded, autologous multi-cellular therapy, in dilated cardiomyopathy. *Circ Res* 2014 Sep 26;115:730-7 [25142002]

ixCELL-DCM, 2016:

Patel AN, Henry TD, Quyyumi AA, Schaer GL, Anderson RD, Toma C, East C, Remmers AE, Goodrich J, Desai AS, Recker D, DeMaria A Ixmyelocel-T for patients with ischaemic heart failure: a prospective randomised double-blind trial. *Lancet* 2016;: [27059887]

5 myoblasts

Trial	Treatments	Patients	Trials design and methods
Cardiac stem cells vs control			
SCIPIO , 2011 [NCT00474461] n=NA follow-up:	-	Patients With Ischemic Cardiomyopathy	
myoblasts vs control			
CAuSMIC , 2005 n=12/11 follow-up: 12 mo	3-dimensional guided catheter-based delivery of autologous skeletal myoblasts versus control	patients with previous myocardial infarction and heart failure, New York Heart Association (NYHA) functional class II to IV	

continued...

Trial	Treatments	Patients	Trials design and methods
SEISMIC , 2011 n=26/14 follow-up: 6 mo	percutaneous intramyocardial transplantation of autologous skeletal myoblasts versus control	Patient with heart failure patients with implanted cardioverter-defibrillators	
myoblasts vs placebo			
MAGIC , 2001 n=63/34 follow-up: 6 mo	autologous skeletal myoblasts into the postinfarction scar during coronary artery bypass grafting of remote myocardial areas versus placebo	patient with severe ischaemic heart failure	
MARVEL , 2011 [NCT00526253] n=14/6 follow-up: 6 mo	image-guided, catheter-based intramyocardial injection of placebo or myoblasts (400 or 800 million) versus placebo	patients with class II to IV HF and ejection fraction <35%	

References

SCIPIO, 2011:

Bolli R, Chugh AR, D'Amario D, Loughran JH, Stoddard MF, Ikram S, Beache GM, Wagner SG, Leri A, Hosoda T, Sanada F, Elmore JB, Goichberg P, Cappelletta D, Solankhi NK, Fahsah I, Rokosh DG, Slaughter MS, Kajstura J, Anversa P Cardiac stem cells in patients with ischaemic cardiomyopathy (SCIPIO): initial results of a randomised phase 1 trial. *Lancet* 2011;378:1847-57 [22088800]

Chugh AR, Beache GM, Loughran JH, Mewton N, Elmore JB, Kajstura J, Pappas P, Tautoles A, Stoddard MF, Lima JA, Slaughter MS, Anversa P, Bolli R Administration of cardiac stem cells in patients with ischemic cardiomyopathy: the SCIPIO trial: surgical aspects and interim analysis of myocardial function and viability by magnetic resonance. *Circulation* 2012;126:S54-64 [22965994]

CAuSMIC, 2005:

Dib N, Michler RE, Pagani FD, Wright S, Kereiakes DJ, Lengerich R, Binkley P, Buchele D, Anand I, Swingen C, Di Carli MF, Thomas JD, Jaber WA, Opie SR, Campbell A, McCarthy P, Yeager M, Dilsizian V, Griffith BP, Korn R, Kreuger SK, Ghazoul M, MacLellan WR Safety and feasibility of autologous myoblast transplantation in patients with ischemic cardiomyopathy: four-year follow-up. *Circulation* 2005;112:1748-55 [16172284] 10.1161/CIRCULATIONAHA.105.547810

Dib N, Dinsmore J, Lababidi Z, White B, Moravec S, Campbell A, Rosenbaum A, Seyedmadani K, Jaber WA, Rizenhour CS, Diethrich E One-year follow-up of feasibility and safety of the first U.S., randomized, controlled study using 3-dimensional guided catheter-based delivery of autologous skeletal myoblasts for ischemic cardiomyopathy (CAuSMIC study). *JACC Cardiovasc Interv* 2009;2:9-16 [19463392] 10.1016/j.jcin.2008.11.003

SEISMIC, 2011:

Duckers HJ, Houtgraaf J, Hehrlein C, Schofer J, Waltenberger J, Gershlick A, Bartunek J, Nienaber C, Macaya C, Peters N, Smits P, Siminiak T, van Mieghem W, Legrand V, Serruys PW Final results of a phase IIa, randomised, open-label trial to evaluate the percutaneous intramyocardial transplantation of autologous skeletal myoblasts in congestive heart failure patients: the SEISMIC trial. *EuroIntervention* 2011;6:805-12 [21252013] 10.4244/EIJV6I7A139

MAGIC, 2001:

Menasch P, Hagge AA, Scorsin M, Pouzet B, Desnos M, Duboc D, Schwartz K, Vilquin JT, Marolleau JP Myoblast transplantation for heart failure. *Lancet* 2001;357:279-80 [11214133] 10.1016/S0140-6736(00)03617-5

MARVEL, 2011:

Povsic TJ, O'Connor CM, Henry T, Taussig A, Kereiakes DJ, Fortuin FD, Niederman A, Schatz R, Spencer R 4th, Owens D, Banks M, Joseph D, Roberts R, Alexander JH, Sherman W A double-blind, randomized, controlled, multicenter study to assess the safety and cardiovascular effects of skeletal myoblast implantation by catheter delivery in patients with chronic heart failure after myocardial infarction. *Am Heart J* 2011;162:654-662.e1 [21982657] 10.1016/j.ahj.2011.07.020

6 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.