

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

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## 1 bone marrow derived stem cell

Trial	Treatments	Patients	Trials design and methods
<b>Mesenchymal stem cells vs allogeneic mesenchymal stem cells</b>			
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	
<b>Bone marrow derived stem cell vs control</b>			
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
<b>Bone marrow mononuclear cells vs control</b>			
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	
<b>Bone marrow progenitor cells vs control</b>			
Manginas , 2007 n=NA	-	patients with old, nonviable anterior myocardial infarction	

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<b>Trial</b>	<b>Treatments</b>	<b>Patients</b>	<b>Trials design and methods</b>
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	
<b>Stem cells vs control</b>			
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	
<b>Bone marrow derived stem cell vs placebo</b>			
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
<b>Bone marrow mononuclear cells vs placebo</b>			
FOCUS-HF , 2011 [NCT00203203.] n=20/10 follow-up: 6 mo	-	patients with chronic HF	
<b>Bone marrow derived stem cell vs sham</b>			
C41750/3100 <i>ongoing</i> [NCT02032004] n=NA follow-up:	-	-	

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C41750/3100, 0:

## 2 Cardiac stem cells

Trial	Treatments	Patients	Trials design and methods
<b>Cardiopoietic stem cell vs control</b>			
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	

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## 3 gene therapy

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Trial	Treatments	Patients	Trials design and methods
<b>gene therapy vs placebo</b>			
<b>CUPID , 2011</b> 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

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## 4 ixmyelocel-T

Trial	Treatments	Patients	Trials design and methods
<b>ixmyelocel-T vs control</b>			

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Trial	Treatments	Patients	Trials design and methods
<b>Catheter-DCM , 2014</b> [NCT01020968] n=NA follow-up:	-	patients with dilated cardiomyopathy	
<b>IMPACT-DCM , 2014</b> [NCT00765518] n=NA follow-up:	-	patients with dilated cardiomyopathy	
<b>ixmyelocel-T vs placebo</b>			
<b>ixCELL-DCM , 2016</b> [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	

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## 5 myoblasts

Trial	Treatments	Patients	Trials design and methods
<b>Cardiac stem cells vs control</b>			
<b>SCIPIO , 2011</b> [NCT00474461] n=NA follow-up:	-	Patients With Ischemic Cardiomyopathy	
<b>myoblasts vs control</b>			
<b>CAuSMIC , 2005</b> 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	

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Trial	Treatments	Patients	Trials design and methods
<b>SEISMIC , 2011</b> 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	
<b>myoblasts vs placebo</b>			
<b>MAGIC , 2001</b> 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	
<b>MARVEL , 2011</b> [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%	

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## 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.