

**Supplementary Table 1: Randomised controlled gene therapy trials for CAD and PAD**

Coronary artery disease			
Trial name or ID	GP	Pat no	Main endpoint result
VIF-CAD	VEGF-A/FGF-2	52	- myocardial perfusion
NOVA	VEGF-A121	17	- exercise tolerance
Ad2HIF	Hif-1a	13	+ safety
Northern	AdVEGF-A121	93	- myocardial perfusion
AGENT-4	VEGF + L-arginine	19	+ myocardial perfusion
AGENT-3	FGF-4	116	- exercise tolerance
Genasis	FGF-4	416	- exercise tolerance
REVASC	VEGF-C	295	- exercise tolerance
NCT00135850	VEGF-A121	67	+ exercise tolerance, symptoms
Euroinject One	VEGF-A+GCSF	48	- myocardial perfusion
AGENT-2	VEGF-A165	80	- myocardial perfusion
KAT	FGF-4	52	+/- myocardial perfusion (trend)
AGENT	VEGF-A165	103	- restenosis
VEGF-2	FGF-4	79	+ safety
	VEGF-C	19	+ safety
Peripheral arterial disease			
Trial name or ID	GP	Pat no	Main endpoint result
TAMARIS	FGF-1	525	- amputation/ death
WALK	Hif-1a/VP16	289	- exercise tolerance
Anghel	VEGF/HGF	43	+ major amputations
Collatogene	HGF	44	+ ulcer healing/ symptoms
HGF-0205	HGF	27	+ safety
TALISMAN	FGF-1	125	- ulcer healing
HGF-STAT	HGF	104	+safety
DELTA-1	Del-1	105	- exercise tolerance
Groeningen trial	Hif-1a/VP16	34	+ safety
RAVE	VEGF-A165	54	- amputations
	FGF-4	13	+ safety
	VEGF-A121	105	- exercise tolerance
	VEGF-A165	54	+ vascularity

  

Trial name or ID	Vector	Delivery	Pat no	Main endpoint result	Secondary endpoint result	Ref			
VIF-CAD	PI	i.m. (cat)	52	- myocardial perfusion	+ exercise tolerance, symptoms	Kukula, Am HJ, 2011			
NOVA	Ad	i.my. (cat)	17	- exercise tolerance	- myocardial perfusion	Kastrup, Eurointerv, 2011			
Ad2HIF	Ad	i.m. (tct)	13	+ safety		Kilian, Circ J, 2010			
Northern	Ad	i.my. (cat)	93	- myocardial perfusion	- exercise tolerance	Stewart, Mol Ther, 2009			
AGENT-4	PI	i.m. (tct)	19	+ myocardial perfusion	+ left ventricular function	Ruel, J Thor Cardiovasc Surg, 2008			
AGENT-3	Ad	i.c. (cat)	116	- exercise tolerance	+ exercise tolerance (women)	Henry, JACC, 2007			
Genasis	Ad	i.c. (cat)	416	- exercise tolerance	+ exercise tolerance (women)	Henry, JACC, 2007			
REVASC	PI	i.m. (cat)	295	- exercise tolerance		http://www.medicalnewstoday.com/releases/53786.php			
NCT00135850	Ad	i.m. (tct)	67	+ exercise tolerance, symptoms	- myocardial perfusion	Stewart, Gene Ther, 2006			
Euroinject One	PI	i.m. (cat)	48	- myocardial perfusion	- symptoms	Ripa, Eur HJ, 2006			
AGENT-2	PI	i.my. (cat)	80	- myocardial perfusion	+ left ventricular function	Kastrup, JACC, 2005			
KAT	Ad	i.c. (cat)	52	+/- myocardial perfusion (trend)		Grines, JACC, 2003			
AGENT	Ad / PI	i.c. (cat)	103	- restenosis	+ myocardial perfusion	Hedman, Circ, 2003			
VEGF-2	Ad	i.c. (cat)	79	+ safety	+/- exercise tolerance (subgroup)	Grines, Circ, 2002			
	PI	i.my. (cat)	19	+ safety	+ symptoms	Losordo, Circ, 2002			
Peripheral arterial disease				Vector	Delivery	Pat no	Main endpoint result	Secondary endpoint result	Ref
TAMARIS	PI	i.m.	525	- amputation/ death				- ABI, symptoms	Belch, Lancet, 2011
WALK	Ad	i.m.	289	- exercise tolerance				+ symptoms	Creager, Circ, 2011
Anghel	PI	i.m.	43	+ major amputations				+ quality of life	Anghe, Cur Neur Res, 2011
Collatogene	PI	i.m.	44	+ ulcer healing/ symptoms				+ TBI, symptoms	Shigematsu, Gene Ther, 2010
HGF-0205	PI	i.m.	27	+ safety				-/+ major amputations	Powell, J Vasc Surg, 2010
TALISMAN	PI	i.m.	125	- ulcer healing				+TcPO2	Nikol, Mol Ther, 2008
HGF-STAT	PI	i.m.	104	+safety				- ABI	Powell, Circ, 2008
DELTA-1	PI	i.m.	105	- exercise tolerance					Grossmann, Am HJ, 2007
Groeningen trial	Ad	i.m.	34	+ safety				+ ulcer healing	Rajagopalan, Circ, 2007
RAVE	PI	i.m.	54	- amputations				+ vascularity	Kusumanto, HGT, 2006
	Ad	i.m.	13	+ safety				- ABI, symptoms	Matyas, HGT, 2005
	Ad	i.m.	105	- exercise tolerance				- ABI, symptoms	Rajagopalan, Circ, 2003
	Ad/PI	i.a.	54	+ vascularity					Mäkinen, Mol Ther, 2002

GP = gene product

tct = thoracotomy

cat = catheter-mediated

- = no effect, + = positive effect

ABI = ankle-brachial index, TBI = toe-brachial index, TcPO2 = Transcutaneous oxygen pressure

Ad = adenovirus

RV = retrovirus

PI = plasmid

i.my. = intramyocardial

i.a. = intra-arterial

i.c. = intracoronary

i.m. = intramuscular