

# A Rodent Model of The Ross Operation: Syngeneic Pulmonary Artery Graft Implantation in A Systemic Position

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## Materials

Name	Company	Catalog Number	Comments
0.9% Sodium Chloride	Monico SpA	AIC 030805105	Two bottles of 100 mL. The cold one (4°C) for flushing the harvesting organ; the warm one (39°C) for moistening, and rehydration of the recipient
7.5% Povidone-Iodine	B Braun	AIC 032151211	
Barraquer	Aesculap	FD 232R	Straight micro needle holder for the vascular anastomoses
Castroviejo needle holder	Not available	J 4065	To close the animal
Clip applying forceps	Rudolf Medical	RU 3994-05	For clip application
Cotton swabs	Johnson & Johnson Medical SpA	N/A	Supermarket product. Sterilized
Curved micro jeweller forceps	Rudolf Medical	RU 4240-06	Used to pass sutures underneath the vases.
Depilatory cream	RB healthcare	N/A	Supermarket product
Electrocautery machine	LED SpA	Surton 200	
Fine scissors	Rudolf Medical	RU 2422-11	For opening the abdomen (recipient)
Fine-tip curved Vannas micro scissors	Aesculap	OC 497R	Only for preparing the pulmonary root, cut the lumbar vases and the 10/0 Prolene
Fluovac Isoflurane/Halotane Scavenger unit	Harvard Apparatus Ltd	K 017041	Complete of anesthesia machine, anesthesia tubing, induction chamber and scavenger unit with absorbable filter
Gentamycin	MSD Italia Srl	AIC 020891014	Antibiotic. Single dose, 5 mg/kg intramuscular, administered during surgery
Heparin	Pharmatex Italia Srl	AIC 034692044	500 IU into the recipient abdominal vena cava

I.V. Catheter	Smiths Medical Ltd	4036	20G
Insulin Syringe, 1 mL	Fisher Scientific	14-841-33	To inject heparin in the harvesting animal and to flush the sectioned aorta in the recipient
Jeweler bipolar forceps	GIMA SpA	30665	0.25 mm tip. For electrocautery of very small vases
Lewis rats (LEW/HanHsd)	Envigo RMS SRL, San Pietro al Natisone, Udine, Italy	86104M	Male or female, weighing 200-250 g (pulmonary root harvesting animals) and 320-400 g (recipients)
Micro-Mosquito	Rudolf Medical	RU 3121-10	In number of four, with tips covered with silicon tubing. To keep in traction the Prolene suture during anastomosis
Operating microscope	Leica Microsystems	M 400-E	Used with 6x, 10x and 16x in-procedure interchangeable magnifications
Perma-Hand silk 2-0	Johnson & Johnson Medical SpA	C026D	To lift the aorta
Petrolatum ophthalmic ointment	Dechra	NDC 17033-211-38	
Prolene 10-0	Johnson & Johnson Medical SpA	W2790	Very fine non-absorbable suture, with a BV75-3 round bodied needle, for the vascular anastomoses
Retractors	Not any	N/A	Two home-made retractors
Ring tip micro forceps	Rudolf Medical	RU 4079-14	For delicate manipulation
Sevoflurane	AbbVie Srl	AIC 031841036	Mixed with oxygen, for inhalatory anesthesia
Spring type micro scissors	Rudolf Medical	RU 2380-14	Straight; 14 cm long
Standard aneurysm clips	Rudolf Medical	RU 3980-12	Two clips (7.5 mm; 180 g; 1.77 N) to close the aorta
Sterile gauze of non-woven fabric material	Luigi Salvadori SpA	26161V	7.5x7.5 cm, four layers
Straight Doyen scissors	Rudolf Medical	RU/1428-16	For use to the donor
Straight micro jeweller forceps	Rudolf Medical	RU 4240-04	10.5 cm long. Used throughout the anastomosis
Syringes	Artsana SpA	N/A	20 mL (for the harvesting animal) and 5 mL (for the recipient). For saline flushing and dipping
TiCron 4-0	Covidien	CV-331	For closing muscles and skin
Tissue forceps V. Mueller	McKesson	CH 6950-009	Used for skin and muscles
Tramadol	SALF SpA	AIC 044718029	Analgesic. Single dose, 5 mg/kg intramuscular
Virgin silk 8-0	Johnson & Johnson Medical SpA	W818	For arterial branch ligation