

Improvement of islet transplantation by the fusion of islet cells with functional blood vessels

Lisa Nalbach¹, Leticia P. Roma², Beate M. Schmitt¹, Vivien Becker¹, Christina Körbel¹, Selina Wrublewsky¹, Mandy Pack¹, Thomas Später¹, Wolfgang Metzger³, Maximilian M. Menger^{1,4}, Florian S. Frueh⁵, Claudia Götz⁶, Haopeng Lin⁷, Joseline E.M. Fox⁷, Patrick E. MacDonald⁷, Michael D. Menger¹, Matthias W. Laschke¹, Emmanuel Ampofo^{1*}

APPENDIX.

Contents: Appendix Tables S1

Appendix Table S1. Summary of exact *P*-values in figures

Figure		Exact P-value
Fig 2	E	FI vs. CI: $P < 0.0001$; CI vs. PI: $P < 0.0001$; FI vs. PI+MVF: $P < 0.0001$; PI vs. PI+MVF: $P < 0.0001$
	G	FI vs. PI: $P = 0.015$; FI vs. PI+MVF: $P < 0.0001$; CI vs. PI+MVF: $P < 0.0001$; PI vs. PI+MVF: $P = 0.0002$
Fig 3	B	FI vs. CI: $P < 0.0001$; FI vs. PI: $P < 0.0001$; FI vs. PI+MVF: $P < 0.0001$; CI vs. PI: $P = 0.0004$; CI vs. PI+MVF: $P < 0.0001$; PI vs. PI+MVF: $P < 0.0001$
	C	FI vs. CI: $P < 0.0001$; FI vs. PI: $P < 0.0001$; FI vs. PI+MVF: $P = 0.0012$; CI vs. PI+MVF: $P < 0.0001$; PI vs. PI+MVF: $P < 0.0001$
	D	FI vs. PI+MVF: $P = 0.0009$; CI vs. PI+MVF: $P = 0.0003$; PI vs. PI+MVF: $P = 0.0001$
	F	FI 1.1 mM vs. FI 16.5 mM: $P = 0.003$; CI 1.1 mM vs. CI 16.5 mM: $P = 0.0099$; PI 1.1 mM vs. PI 16.5 mM: $P = 0.0079$; PI+MVF 1.1 mM

		vs. PI+MVF 16.5 mM: P=0.002; PI 16.5 mM vs. PI+MVF 16.5 mM: P=0.0487
Fig 4	B	FI vs. CI: P<0.0001; FI vs. PI: P<0.0001; FI vs. PI+MVF: P<0.0001; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001
	D	FI vs. PI+MVF: P<0.0001; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001
	G	FI vs. PI+MVF: P<0.0001; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001
	H	Vehicle vs. Linsitinib: P<0.0001
	J	Vehicle vs. Insulin: P=0.0429
	K	Vehicle vs. Insulin: NS
	M	Day 1: FI vs. PI+MVF: P<0.0001; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001 Day 2: FI vs. PI+MVF: P<0.0001; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001 Day 3: FI vs. PI+MVF: P<0.0001; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001
Fig 5	D	hFI vs. hPI: P<0.0001; hCI vs. hPI: P<0.0001; hPI vs. hPI+MVF: P<0.0001
	E	hFI vs. hPI: P<0.0001; hFI vs. hPI+MVF: P=0.0002; hCI vs. hPI: P=0.0004; hCI vs. hPI+MVF: P=0.0058
	F	hFI vs. hPI: P<0.0001; hCI vs. hPI: P<0.0001; hCI vs. hPI+MVF: P=0.0021; hPI vs. hPI+MVF: P=0.0152
	G	hFI vs. hPI+MVF: P<0.0001; hCI vs. hPI+MVF: P<0.0001; hPI vs. hPI+MVF: P<0.0001
	I	Day 1:

		hFI vs. hPI+MVF: $P<0.0001$; hCI vs. hPI+MVF: $P<0.0001$; hPI vs. hPI+MVF: $P<0.0001$ Day 2: hFI vs. hPI+MVF: $P<0.0001$; hCI vs. hPI+MVF: $P<0.0001$; hPI vs. hPI+MVF: $P<0.0001$ Day 3: hFI vs. hPI+MVF: $P<0.0001$; hCI vs. hPI+MVF: $P<0.0001$; hPI vs. hPI+MVF: $P<0.0001$
Fig 6	C	PI vs. PI+MVF: $P=0.0266$
	E	Day 3: FI vs. PI+MVF: $P=0.0024$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P<0.0001$ Day 6: FI vs. CI: $P=0.0351$; FI vs. PI: $P=0.012$; FI vs. PI+MVF: $P=0.0017$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P<0.0001$ Day 10: FI vs. CI: $P=0.0133$; FI vs. PI: $P=0.0162$; FI vs. PI+MVF: $P=0.0125$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P<0.0001$ Day 14: FI vs. CI: $P=0.0351$; FI vs. PI+MVF: $P=0.0356$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P<0.0001$
	F	Day 3: FI vs. CI: $P=0.0352$; FI vs. PI: $P=0.0244$; CI vs. PI+MVF: $P=0.0002$; PI vs. PI+MVF: $P=0.0002$ Day 6: CI vs. PI+MVF: $P=0.0093$; PI vs. PI+MVF: $P=0.0168$ Day 10: CI vs. PI+MVF: $P=0.0468$; PI vs. PI+MVF: $P=0.008$ Day 14:

		FI vs. CI: $P=0.0394$; FI vs. PI: $P=0.0197$; CI vs. PI+MVF: $P=0.0076$; PI vs. PI+MVF: $P=0.0035$
	H	Day 3: FI vs. PI+MVF: $P=0.0032$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P<0.0001$ Day 6: FI vs. PI+MVF: $P<0.0001$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P<0.0001$ Day 10: FI vs. PI+MVF: $P=0.0011$; CI vs. PI+MVF: $P=0.0001$; PI vs. PI+MVF: $P=0.0004$ Day 14: FI vs. PI+MVF: $P=0.0002$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P=0.0002$
Fig 7	E	FI vs. PI+MVF: $P<0.0001$; CI vs. PI+MVF: $P=0.0005$; PI vs. PI+MVF: $P<0.0001$
Fig 8	D	Day -4: FI vs. Nondiabetic: $P<0.0001$; PI+MVF vs. Nondiabetic: $P<0.0001$ Day 0: FI vs. Nondiabetic: $P<0.0001$; PI+MVF vs. Nondiabetic: $P<0.0001$ Day 4: FI vs. PI+MVF: $P=0.0006$; FI vs. Nondiabetic: $P<0.0001$; PI+MVF vs. Nondiabetic: $P=0.049$ Day 7: FI vs. PI+MVF: $P=0.0051$; FI vs. Nondiabetic: $P<0.0001$ Day 10: FI vs. PI+MVF $P<0.0001$; FI vs. Nondiabetic: $P<0.0001$

		Day 14: FI vs. PI+MVF $P<0.0001$; FI vs. Nondiabetic: $P<0.0001$ Day 17: FI vs. PI+MVF $P<0.0001$; FI vs. Nondiabetic: $P<0.0001$ Day 21: FI vs. PI+MVF $P<0.0001$; FI vs. Nondiabetic: $P<0.0001$ Day 24: FI vs. PI+MVF $P=0.0003$; FI vs. Nondiabetic: $P<0.0001$ Day 28: FI vs. PI+MVF $P<0.0001$; FI vs. Nondiabetic: $P<0.0001$
	E	FI vs. PI+MVF: $P<0.0001$; FI vs. Nondiabetic: $P<0.0001$; PI+MVF vs. Nondiabetic: $P<0.0001$
	F	45 min: FI vs. Nondiabetic: $P=0.0383$ 60 min: FI vs. Nondiabetic: $P=0.0267$ 120 min: FI vs. Nondiabetic: $P=0.0199$ 180 min: FI vs. Nondiabetic: $P=0.022$
	G	FI vs. PI+MVF: $P=0.0001$; FI vs. Nondiabetic: $P<0.0001$
	K	FI vs. PI+MVF: $P<0.0001$
Fig EV1	B	FI vs. PI+MVF: $P<0.0001$; CI vs. PI+MVF: $P<0.0001$; PI vs. PI+MVF: $P<0.0001$
	E	FI 1.1 mM vs. FI 16.5 mM: $P=0.0002$; CI 1.1 mM vs. CI 16.5 mM: $P<0.0001$; PI 1.1 mM vs. PI 16.5 mM: $P=0.0005$; PI+MVF 1.1 mM vs. PI+MVF 16.5 mM: $P=0.0002$
	F	FI vs. CI: $P=0.0343$; CI vs. PI: $P=0.0028$; CI vs. PI+MVF: $P=0.0052$
Fig EV2	D	FI vs. PI+MVF: $P=0.0272$; PI vs. PI+MVF: $P=0.0068$
	E	Day 3: 11.0 mM vs. 25.0 mM: $P=0.0003$
Fig EV3	A	hFI vs. hPI+MVF: $P=0.0046$; hCI vs. hPI+MVF: $P=0.0073$
	C	hFI vs. hCI: $P=0.0006$; hFI vs. hPI: $P=0.0004$; hFI vs. hPI+MVF:

		P=0.0005
Fig EV4	A	Day 3: FI vs. CI: P=0.026; FI vs. PI+MVF: P=0.0004; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001 Day 10: FI vs. CI: P=0.007; FI vs. PI: P=0.0411 Day 14: FI vs. CI: P=0.0141; CI vs. PI+MVF: P=0.0226
	B	Day 3: FI vs. PI+MVF: P=0.0037; CI vs. PI+MVF: P<0.0001; PI vs. PI+MVF: P<0.0001 Day 6: FI vs. PI: P=0.0414
	C	Day 3: CI vs. PI+MVF: P=0.0009; PI vs. PI+MVF: P=0.0012 Day 14: FI vs. PI+MVF: P=0.0352
Fig EV5	D	30 min: sham D0 vs. sham D28: P=0.0477 60 min: sham D0 vs. sham D28: P=0.0337 180 min: sham D0 vs. sham D28: P=0.0403
	E	D0 vs. D28: P=0.0003
	J	FI vs. PI+MVF: P=0.0314