

Checklist for Reporting Human Islet Preparations Used in Research

Adapted from Hart NJ, Powers AC (2018) Progress, challenges, and suggestions for using human islets to understand islet biology and human diabetes. Diabetologia <u>https://doi.org/10.1007/s00125-018-4772-2</u>.

Manuscript DOI: https://doi.org/10.2337/[insert manuscript submission number] (Example, https://doi.org/10.2337/db18-1234)

Title: Loss of furin in β cells induces an mTORC1-ATF4 anabolic pathway that leads to β cell dysfunction

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Islet preparation	1	2	3	4	5	6	7	8ª
MANDATORY INFORMATION								
Unique identifier	R213	R231	R240	R244	R259	R262	R263	SAMN15942269
Donor age (years)	57	41	55	48	45	54	71	63
Donor sex (M/F)	М	F	F	F	F	F	М	F
Donor BMI (kg/m ²)	23.1	37.1	30.9	30.4	33.1	22.4	38.2	26.9

Donor HbA1c or other measure of blood glucose control	6.7	6.8	6.9	7.5	6.4	5.6	7.6	5.5
Origin/source of islets ^b	Alberta Islet Core	Alberta Islet Core	Alberta Islet Core	Alberta Islet Core	Alberta Islet Core	Alberta Islet Core	Alberta Islet Core	IDP
Islet isolation centre	Alberta Diabetes Institute Islet Core (University of Alberta)	Alberta Diabetes Institute Islet Core (University of Alberta)	Alberta Diabetes Institute Islet Core (University of Alberta)	Alberta Diabetes Institute Islet Core (University of Alberta)	Alberta Diabetes Institute Islet Core (University of Alberta)	Alberta Diabetes Institute Islet Core (University of Alberta)	Alberta Diabetes Institute Islet Core (University of Alberta)	Southern California Islet Cell Resource Center
Donor history of diabetes? Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
If Yes, complete the next	two lines if th	is information	is available					
Diabetes duration (years)	22	0.5	2	3	4	unknown	9	N/A
Glucose-lowering therapy at time of death ^c	Metformin	None	Diet controlled	Oral medications: Glifage (Metformin?) XR 500mg OD (500mgx3)	Oral meds only – no insulin	Metformin – Was on insulin 2 years ago but due to weight loss (30 pounds) was described Metformin only.	Metformin	

RECOMMENDED INFORMATION									
Donor cause of death	Neurological Determination of Death	Neurological Determination of Death	Neurological Determination of Death	Neurological Determination of Death	Neurological Determination of Death	Neurological Determination of Death	Neurological Determination of Death	Cerebrovascular/ Stroke	

Warm ischaemia time (h)								
Cold ischaemia time (h)	16	18	13	11.5	12	3	20	5.0
Estimated purity (%)	50	50	50	70	70	75	75	80
Estimated viability (%)								
Total culture time (h) ^d								
Glucose- stimulated insulin secretion or other functional measurement ^e								
Handpicked to purity? Yes/No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Additional notes								

^aIf you have used more than eight islet preparations, please complete additional forms as necessary ^bFor example, IIDP, ECIT, Alberta IsletCore ^cPlease specify the therapy/therapies ^dTime of islet culture at the isolation centre, during shipment and at the receiving laboratory ^ePlease specify the test and the results