## nPOD DataShare - Viewing Donor Data and Ordering Samples

## 1. Introduction

nPOD utilizes two databases to provide information about our donors and allow for online sample ordering. This document gives a basic guide for how to navigate the DataShare site and use it to select cases of interest and request the most appropriate samples for your research.

We recommend using our <u>Online Pathology site</u> (Aperio eSlide Manager) to view *basic* donor information along with slides that have been screened by nPOD OPPC. Use <u>DataShare</u> to view *detailed* information about each donor's admission and clinical history, as well as lab results, HLA, demographics, and more. *IMPORTANT: DataShare is constantly updated; please check all data prior to publication!* 

Depending on your research goals and the types of samples you need, it may work best to use DataShare first to check the number of available samples. Online Pathology is a great resource for choosing paraffin and OCT blocks of interest; OPPC has scanned H&E slides for nearly all available blocks, as well as slides stained by IHC for insulin, glucagon, somatostatin, CD3, CD45, and Ki-67. Once you have chosen cases and sample blocks, use DataShare to request slides, vials, or cells.

## 2. DataShare – Viewing Donor Data

2.1. The <u>DataShare</u> main page allows you to view nPOD Case Histories, Reports and Research Data, and the Specimen Inventory (Figure 1).

DOD	Q Search
vork for Pancreatic Organ	
Donors with Diabetes	
	Help * marialbeery *
ome	Getting Started
POD Datashare: Quick Guide	
Welcome to nPOD DataShare. DataShare is an initiative by nPOD to address the growing need of supported investig received from the program. Given the appropriate permissions, all information in DataShare is available for downloa	ators to collaboratively store, organize, analyze, and share data around common biospecimens ad and analysis using built-in tools or custom programming languages.
nPOD Case Histories and Narratives: Click on a CaseID to find other investigators who have received sa particular donor, learn more about research projects and published reports that include the selected case, vi pathology images, and access remaining tissue inventory.	imples from a lew contributed
Reports & Research Data: Information, such as medical/lifestyle history, medications, autoantibody testi assay data is available for use by clicking on the dataset of choice, reviewing prepared reports, or creating o	ng results, lab and ustomized views.
Specimen Inventory: Search the entire donor inventory for real-time availability on all specimens in the b tissues, slides, and/or cell samples for use in approved studies.	biobank. Request
Video Tutorials: Short self-help videos that assist users in performing the following how-to tasks:	
Identifying Donors of Interest     Checking Sample Availability in Real-Time     Ordering Samples Online	

Figure 1. DataShare main page

2.2. Click on the Specimen Inventory link to search for samples. You will also be able to view Reports & Research Data and nPOD Case Histories (Figure 2).

rk for Pancreatic Organ Donors with Diabetes		赠 Shopping Cart
▶ nPOD DataShare		Help -
OD DataShare	and a second	POD Case Histories Reports & Research Data Specimen Inver
portant Sample Request G	uidelines (Please read before placing the order) 💉 🧷	Top 10 Availability List
he below guidelines and tips h	nave been prepared to maximize the use of the nPOD Biobank for all current and future studies:	Cases
The maximum number of slider aximum per block and total nun slides are encouraged.	s per block per request is 10. Requests exceeding 300 total sildes per request will require OPPC approval. For certain or bers may need to be reduced. Please be conservative and order the minimum number of sildes anticipated to complet	cases in high demand, the te your assay(s). Co-labeling
Although you will be able to vie proved for use in your nPOD pr	ew the contents of the entire specimen inventory, requests will not be honored for donor types, sample types, and alique ofect.	uot types not previously
Do not use TID slides as assay	positive or negative controls; instead, use blocks from available disease free cases as assay controls.	8276
All requests for specimens from	n cases with the "Limited" status will require further justification and nPOD Tissue Prioritization Committee approval pr	rior to distribution.
OD Sample Search		
POD CaseID:		
onor Type:	v	Aliquots
ample Type:	v	Parafin - 650
liquot Type:	v	OCT - Koze
ex:	~	Vial – Adas
ace:	v	Vial RNALater - 3304
ge:	×	Cells - 8353
ME	le la	PBMC - 141
RB1_1:	*	EN.450PE ree
RB1_2:		EM-29/PF-1%G - SS
SEARCH		RNA-DS
		1 December 201

Figure 2. DataShare Specimen Inventory page

2.3. To view detailed information about an nPOD donor, use either the Case Histories tab or the Reports & Research Data tab. The Case Histories tab will display a list of Case IDs that can be refined by donor type (Figure 3). Clicking on a Case ID will display a limited amount of summary data, as well as links to publications, available samples, and active projects that have received samples from the case (Figure 4).

■ ▶ nPOD DataShare						
nPOD DataShare						nPOD Case Histories
NPOD CaseID List						
	_					
Show	Filter					
	Found 11	6 npod cas	eids of 4	13.		
Cohorts Not in any cohort Not in any cohort Not in any cohort Cystic Fibrosis Flatbush Diabetes Gastric Bypass Gestational Diabetes No Diabetes Other - Diabetes Other - Diabetes Other - No Diabetes Other -	6025         60           60225         60           6026         60           6031         60           6032         60           6033         60           6038         60           6039         60           6040         60           6041         60           6045         60           6046         60           6051         6           6052         6           6054         60           6055         6           6062         6           6062         6           6062         6           6064         6	067         6143           067         6143           070         6148           070         6148           071         6150           076         6152           077         6155           077         6155           084         6169           084         6163           0867         6173           0896         6180           113         6193           121         6196           121         6196           135         6204           138         6205           138         6205           138         6205           138         6205	6208 6209 6211 6212 6215 6220 6223 6224 6223 6240 6237 6240 6242 6243 6244 6245 6245 6245 6245	6258 6261 6262 6263 6264 6265 6266 6281 6285 6296 6298 6299 6306 6307 6319 6321 6322 6323	6324 6325 6327 6328 6330 6337 6341 6342 6360 6362 6367 6371 6380 6396 6399 69	

Figure 3. Case Histories tab, filtered for T1D cases.

■ ► nPOD DataShare		
		nPOD Case Histories Reports & Research Data
n	NOD CaseID - 6141	
s	EARCH FOR '6141' > DETAILED DATASETS >	
	INFORMATION	TISSUE RECOVERED
	CE DEMOGRAPHICS	Duodenum
	Age/Gender 36.7 year old Male	PanBody PanHead
	Race Caucasian	PanTail
		PanUnc PLN
		Serum
	High Resolution HLA A*01:01/01:01 B*08:01/15:01 C*01:02/03:03	Spieen
	DRB1*03:01/04:01 DQA1*03:01/05:01 DQB1*02:01/03:02 DPA1*01:03/01:03	PATHOLOGY IMAGES
	C Peptide Levels Less than .05	Pathology Images not available.
	Duration (Years) 28	
	INVESTIGATOR REPORTS	
	• ZULZ Pancreas organ weight in individuals with disease-associated autoantibodies at risk for	
	type 1 diabetes Campbell-Thompson M, Wasserfall C, Montgomerv EL. Atkinson MA. Kaddis JS	
	JAMA, 2012 PMD: 23222991	
	Learn more	
	▼ 2013	
	Expression of the enteroviral capsid protein VP1 in the islet cells of patients with type 1 diabetes is associated with induction of protein kinase R and downregulation of Mcl-1	
	Richardson SJ, Leete P, Bone AJ, Foulis AK, Morgan NG	
	DiBecologia / 2013 PMID: 23064357	
	ACTIVE PROJECTS	
	▼ Beta Cell Physiology and Dysfunction	
	Deoxynypusine synthase: a novel target for beta cell protection Investigator Dr. Raghavendra Mirmira	
	Email rmirmira@iu.edu Phone	
	Category Beta Cell Physiology and Dysfunction	
	Northwest Lipid Research	
	Investigator Dr. Santica Marcovina Email jjc8@u.washington.edu	
	Phone         206-543-3694           Category         Core Lab	
	Denver AAb Core	
	Investigator Dr Liping Yu Email LIPING YU/AUCDENVER EDU	
	Phone 303-724-6808 Category Core Lab	
	UF AAb Core	
	Investigator Dr. Clive Wasserfall	
	Phone 352-273-9298	
	High resolution HLA typing	
	Investigator Dr. Janelle Noble	
	Email         jnoble@chori.org           Phone         510-450-7657	
	Category Core Lab	
	Investigator Dr. Stephen Rich	
	Email         ssr4n@virginia.edu           Phone         434.243.7356	
	Category Core Lab	
	Investigator Dr. Irina Kusmartseva	
	Email inkusmartseva@ufl.edu Phone	
	Category Core Lab	
	Humoral Immunity in Type 1 Diabetes	

Figure 4. CaseID view from Case Histories tab, Case 6141.

2.4. Use the Reports & Research Data tab to view tables of donor data organized by category. Hovering over the dataset name will show a description of the data included in each table (Figure 5).

P())			L
ork for Pancreatic Organ Donors with Diabetes			🐺 Shopping Cart
▶ nPOD DataShare			
OD DataShare		nPOD	Case Histories Report
ata Views 👻 🍠			
name, category, etc.	٩		
Name		Details [	Data Cut Date Modified
General Donor Information			
			08-31-20
Pancreas Weights			08-31-20
RIA_AutoAb_Results		=	08-31-20
Lifestyle and Medical History			08-23-20
Diabetes Information			08-23-20
Terminal Hospitalizat Diabetes Inf	ormation		
Labs Taken Closest Source:	General Donor Information		04-01-20
Meds Given w/in 2	Dataset		01-13-20
Serologies	None	=	08-15-20
Transfusions and I	C-Peptide 4. HbA1c 5. Peak Glucose Hosp Stay (mg/dL) 6.		08-15-20
	History of Diabetes 7. Insulin Dependent 8. Diabetes Meds		
Hi Res HLA Post Re			08-15-20
Low Resolution HL	Guinea Pig Contact: 3.0xee of 2.xehot is 3.Lastingh or 4x.Aner 30 Date: Birth your Sect Hispanic? totaler/Abska AnerCan/Book	=	08-15-20
Histopathology	3992420018         2000 = 01931         2000 = 01930         0         0         0         0           000020018         2000 = 01910         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000         1000 = 000		
nPOD Core Lab Eva	999225541 2006 03 01 3160 06 05 Terraik No 0 0 African Antencan     or Black		08-15-20
Data Reports	9990320565 2006-03-10 1960-07-05 Male Yes 0 0 0		
Donor_By_Group_	Image: Proceeding and the set of		09-15-20
	American     American     Ande     Ande		
	940220613 2006-01-03 3972-10-18         Fermile         No         0         0         0           999320814 2000-01-01 3979-32-21         Mele         No         0         0         African American of Back		
	999220649 2006-01-02 1974-06-17 Yonak No 0 0 Arkan Antentan or Black		
	99920652 2006-02-01 3560-07-11         Male         No         0         0         0           999200652 2006-02-01 3560-11-14         Male         Vm         0         0         0		
	T ANALYSIS TOP ALL TRANSPORT TO ALL TANK AND ALL TANKS AND ALT TANKS		

Figure 5. Reports & Research tab view.

2.5. Each dataset can be sorted and filtered by column. Use the 'Export' option to create an Excel file of either the entire table or only selected rows. DataShare also has the capability to create scatterplots and charts from entire datasets or highlighted rows using the 'Charts' menu (Figure 6).

nPC	DD Dat	aShare								nPOD Case	Histories	Reports & Research Data	Specimen Inventory M	anage 🥒
Da	Dataset: Diabetes Information, All Visits													
Data	includes	s: 1. Don	or Type 2. Diab	etes Duration (	yrs) 3. C-Peptide 4. H	bA1c 5.	Peak Gl	ucose Hosp Stay (m	g/dL) 6. His	story of Diat	oetes 7. Insulin	Dependent 8. Diabetes Meds Tak	en 9. Pancreas Disease Notes	
FILTER VIEWS CHARTS NOOD CASED GROUPS EXPORT AGE SIZE VINSERT NEW MANAGE DATASET IMPORT DATA DELETE VIEW SPECIMENS 1 - 100 of 407 Next > La Excel  Excel  C												J7 Next≻ Last≫		
		nPOD CaseID	Donor Type	Diabetes Duration (yrs <mark>)</mark>	Age At Onset	C- Peptide	HbA1c	Peak Glucose Hosp Stay (mg/dL)	History of Diabetes	Insulin Dependent	Diabetes Med	s Taken		Pancreas Disease Notes
	EDIT )	100	Virus infected cell line		Sort Descending									
	EDIT )	101	Virus infected cell line		Clear Sort									
	EDIT >	102	CMA		Filter									
0	EDIT >	103	Virus infected cell line		Clear Filter									
	EDIT >	104	<other></other>		11 Ouisk Chart									
	EDIT	1338	Fulminant	0.01			7.9	1266						
	EDIT )	3005	Transplant	20.0	29.0	0.05	11.1		Yes, >10 years	Yes, >10 years	Insulin pump unit/10g carb	therapy (discontinued in 2008), Li s and 1 unit/40 mg/dL when gluco	antus 18 units per day, Humalog 1 se > 100.	Transplant
	EDIT >	503	Autoab Pos									<u>,</u>		
	EDIT )	6001	No diabetes			1.58		278	No		None			
	EDIT >	6002	Autoab Pos					220	No		None			
	EDIT )	6003	No diabetes					347	No		None			
	EDIT >	6004	No diabetes					245			None			
	EDIT )	6005	No diabetes					241	No		None			

Figure 6. Diabetes Information dataset. Filter and sort by columns, create charts, and export data.

## 3. DataShare – Ordering Samples

- 3.1. Review case data from DataShare AND Online Pathology prior to ordering samples; since all nPOD cases come from organ donors and autopsies, there are many confounding factors that could affect your research. nPOD donors exemplify the heterogeneity seen in T1D there are a limited number of clear-cut, "classic" cases!
- 3.2. **Review Important Sample Request Guidelines** on the specimen inventory page (Figure 2) prior to creating a request. All requests are reviewed by OPPC and may be delayed or altered if guidelines are not followed.
- 3.3. From the Specimen Inventory page, use the Sample Search drop-down menus to narrow down the available inventory to the donors, case IDs, and samples you need (Figure 7).

nPOD Sample S	earch		
nPOD CaseID:			
Donor Type:	T1D	~	
Sample Type:		~	
Aliquot Type:	Paraffin, OCT	~	
Sex:	Cell Wash	-	
Race:	Cells DNA		
Age:	EM-2%PF-1%G		
BMI:	EM-4%PF		
DRB1_1:	🔲 Fresh-15ml media		
_ DRB1_2:	<ul> <li>Fresh-50ml media</li> <li>Islet</li> </ul>		
SEARCH			
	Pack		
	✓ Paraffin		
	Paraffin-4% PF	<b>•</b>	

Figure 7. Sample Search in DataShare.

3.4. Further refine the search using the 'Filter' function by each column as needed. For example, click on a column heading to use the 'Filter' menu → 'Choose Filters' → 'Equals One Of' filter type to list multiple CaseIDs, separated by semicolons with no spaces (Figure 8).

EXP Hide	orr≁ e Previ	PRINT PAGE	size NPOD	caseid groups All>	REQUEST OP	TIONS	1 - 10	0 of 3,412 Next≻ Last≫
Vie	w: det	fault						×
Filt	er: (D	onorType = T:	1D) AND (Deri	/ativeType IS	ONE OF (Paraff	in, OCT))		
		nPOD CaseID	Donor Type Y	Sample Type	Aliquot Type Y	Block/Vial Number	OPPC Sample Status	General Comments
	0.6	6025	T1D	PanOther	Paraffin	04	Available	
	0.00	6025	T1D	PanOther	Paraffin	08	Available	
	0 🕎	6025	T1D	PanOther	Paraffin	09	Available	
	0.00	6025	T1D	PanOther	Paraffin	11	Available	
	0 100	6025	T1D	PanOther	Paraffin	13	Available	
	0.00	6025	T1D	PanOther	Paraffin	14	Available	
	0 👜	6025	Show Rows W	here nPOD Case	eID	×	Available	
	0 @	6026	Choo	se Filters Ch	oose Values		Available	
	0,00	6026					Available	
	0, 🕅	6026	Filter Type:	Equals On	e Of (e.g. "a;b;c")	*	Available	
	0 100	6026		6325;630	7;6371		Available	
	0.00	6031	and:	No Other	Filter	¥	Available	
	0,00	6031	-				Available	
	0.)	6031					Available	
	0 👜	6031	ок	CANCEL	CLEAR FILTER	CLEAR ALL FILTERS	Available	
	0	6031	-				Available	
	0.00	6031	T1D	PanOther	Paraffin	01	Available	
	0.00	6031	T1D	PanOther	Paraffin	02	Available	
	0	6031	T1D	PanOther	Paraffin	03	Available	

Figure 8. Sample Inventory, filter by CaseID, Donor Type, Sample, Aliquot, or Block/Vial number.

3.5. The figure below shows the inventory filtered by the CaseIDs 6307, 6325, and 6371, the sample type PanHead, the aliquot type Paraffin, and the Block/Vial number 01 and 01A-D. In this example, filtering would allow the addition of multiple paraffin blocks from the same regions of the pancreas from different T1D donors to a new request using the check boxes (Figure 9). Slides can also be added to an existing request using the same method, as long as the request was not submitted to OPPC. In the event that the request was already submitted, you can either create another request or delete the first one and consolidate your order into a second request. You can also click on the shopping cart icon to request individual samples.

EXP Hide	ORT - PRINT Previously Re	PAGE SIZE - NPOD CASEID GROUPS - quested By <show all=""></show>	REQUEST OPTIONS -				
View: default		Create New Request					
Filte Para	er: (DonorType	= T1D) AND (donortype = T1D) A	Add To Existing Request	(6325, 6307, 6371)) AND (P	rotocolNumber IS ONE OF	(01, 01A, 01B, 01C, 01D)) AND (P	rimaryType = PanHead) AND (Der
		nPOD CaseID 🖌	Donor Type Y	Sample Type 🖌	Aliquot Type 🖌	Block/Vial Number 🖌	OPPC Sample Status
	0 jā	6307	T1D	PanHead	Paraffin	01A	Available
	0 je	6307	T1D	PanHead	Paraffin	01B	Available
	0,6	6307	T1D	PanHead	Paraffin	01C	Available
	0,6	6307	T1D	PanHead	Paraffin	01D	Available
	0	6325	T1D	PanHead	Paraffin	01	Available
	0.6	6371	T1D	PanHead	Paraffin	01	Available

*Figure 9. Filtering sample inventory and creating a new request.* 

3.6. Fill out all required spaces in the new specimen request form (Figure 10). Your previous entries will repopulate the next time you make a new request. You **cannot** change/add information after clicking Save & Continue.

INEW SDE	ecimen F	Requests	>				
Please fill out t Project Princi Kusmartseva, I	his form to cre pal Investiga rina	ate a new spe tor (Require	cimen reques d):	t. You will have the (	chance to add or remo	ve specimens before f	the request is submitte
Approved nPO Provide title of Tutorial test	DD Project (C project(s) util	Optional): izing nPOD sa	mples				
Special Conta Provide a name	ct Name (Op if order being	tional): g shipped to lo	cation other t	han PI home institut	ion		
Shipping Info Please enter co	rmation (Recontact name an	quired): nd delivery shi	pping address	s. In some cases, the	e special contact name	and contact name m	ay be the same
Dr. Irina Kus 1275 Center D Gainesville,	martseva rive FL 32610						
Transit Instru As needed for a	actions (Options) (Options	onal): pping or packa	aging requirer	nents			
Shipping According Please provide	ount Number the courier na	(Optional): Ime and accou	nt number for	the vendor you wou	Ild like to be used		
FedEx Account	# 11111111						
	uctions (Ontiv						
Special Instru	icuons (opu	onal):					
Special Instru		onal):					
Special Instru		onal):					
Special Instru Feedback For If not, please d	m Completed	onal): I for Previous /www.jdrfnpod	Shipment?	<b>(Optional):</b> tigators/request-npc	od-samples/ and then a	inswer YES. If N/A, so	o state.
Special Instru Feedback For If not, please d	m Completed o so at http://	I for Previous	Shipment?	( <b>Optional):</b> tigators/request-npc	od-samples/ and then a	inswer YES, If N/A, so	o state.
Special Instru Feedback For If not, please d SAVE & CONTINU Selected Spec	m Completed o so at http://	I for Previous	Shipment? .org/for-inves	(Optional): ligators/request-npc	od-samples/ and then a	inswer YES. If N/A, so	o state.
Special Instru Feedback For If not, please d Salve & continu Selected Spec VIEWS+ CH/	m Completed o so at http://	I for Previous www.jdrfnpod	Shipment? .org/for-inves	(Optional): Ligators/request-npc	od-samples/ and then a	insver YES. If N/A, so	o state.
Special Instru Feedback For If not, please d Salve & contrint Selected Spec VIEWS - CHA nPOD CaseID	m Completed lo so at http:// E CANCEL Imens: RTS* EXPOR Donor Type	I for Previous www.jdrfnpod	Shipment? org/for-inves PAGE SIZE - Aliquot Type	(Optional): ligators/request-npc Block/Vial Number	OPPC Sample Status	General Comments	o state.
Special Instru Feedback For If not, please d Salected Spec Selected Spec VIEWS - CH/ nPOD CaseID 6 6307	m Completed o so at http:// imens: RTS+ EXPOR Donor Type T1D	I for Previous www.jdrfnpod Sample Type PanHead	Shipment? ( org/for-inves PAGE SIZE ~ Aliquot Type Paraffin	(Optional): tigators/request-npc Block/Vial Number 01A	OPPC Sample Status Available	insver YES. If N/A, so General Comments	o state.
Special Instru Feedback For If not, please d Salected Spec VIEWS GH INPO Case1D 6 6307 6 6327	m Completed lo so at http:// imens: RrTS ~ EXPOR Donor Type T1D T1D	tr PRIMT I Sample Type PanHead PanHead	Shipment? .org/for-inves PAGE SIZE ~ Aliquot Type Paraffin Paraffin	(Optional): ligators/request-npc Block/Vial Number 01A 01	OPPC Samples/ and then a Available Available	Inswer YES. If N/A, so General Comments	o state.

Figure 10. New Specimen Request form.

3.7. The next window will allow you to request the number of slides per block, up to a maximum of 10 (Figure 11).

Extended Specimen Request							
	UNSTAINED SLIDES FROM BLOCKS						
	<b>Case ID</b> 6307	Sample Type PanHead	<b>Aliquot Type</b> Paraffin	Block	5	# of Slides	
	6325	PanHead	Paraffin	01	5	<b>~</b>	
	6371	PanHead	Paraffin	01	5	* *	
							SAVE

*Figure 11. Extended Specimen Request, number of slides per block.* 

3.8. The Specimen Request page will contain all of the information entered for the request so far, including shipment information and specimens requested. In order to see how many slides have been requested per block, use the 'Update Extended Request' link. More specimens may be added using the 'Specimen Search' link and may be removed using the check boxes and 'Remove Selected' (Figure 12). Once you have finished adding all slides, vials, or cells, use the 'Submit Request' button to finish.



Figure 12. Specimen Request, not yet submitted.