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 Online Pathology site (Aperio eSlide Manager) to view *basic* donor information along with slides that have been screened by nPOD OPPC. Use DataShare 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 DataShare main page allows you to view nPOD Case Histories, Reports and Research Data, and the Specimen Inventory (Figure 1).
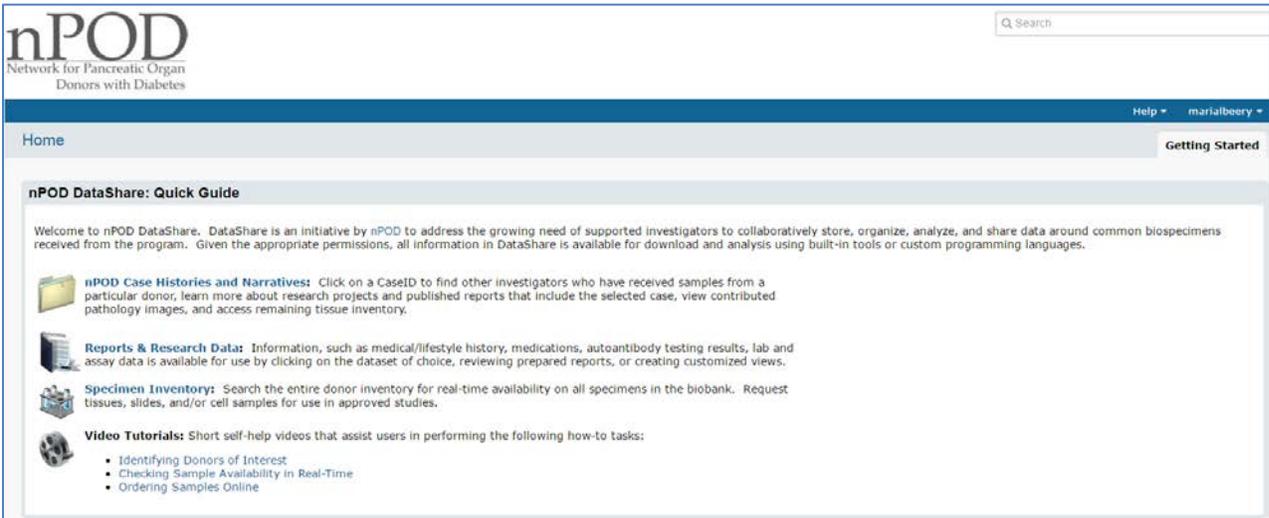

Figure 1. DataShare main page

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).
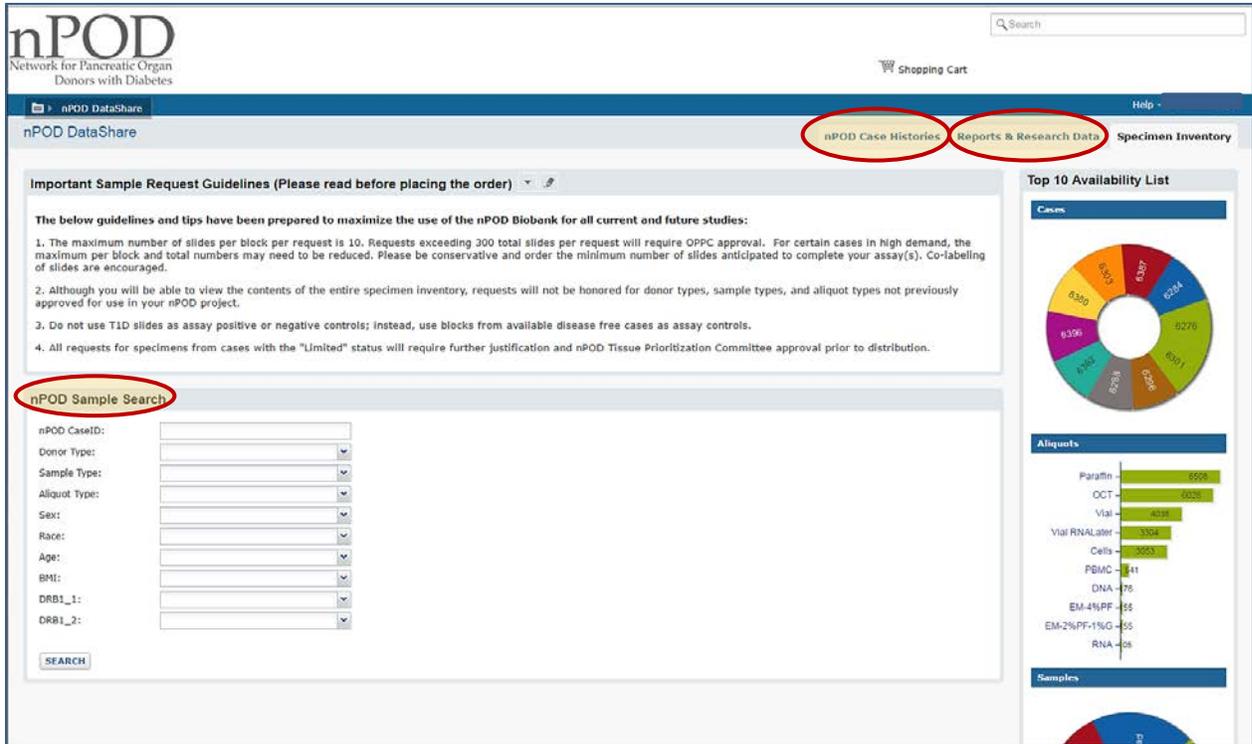

Figure 2. DataShare Specimen Inventory page

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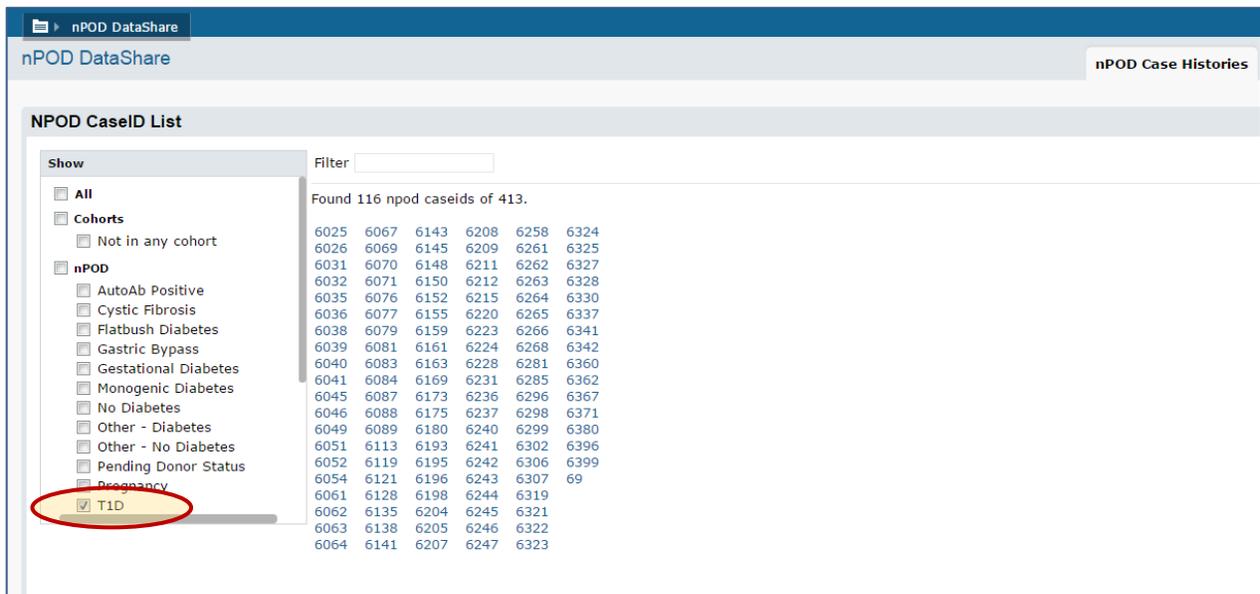
Figure 3. Case Histories tab, filtered for T1D cases.

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).

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).

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).

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).

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.

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.

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).

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.