

nPOD ONLINE PATHOLOGY

Viewing Donor Data & Slides

Introduction – Aperio eSlide Manager

This document is a basic guide for navigating nPOD's Online Pathology database, Aperio eSlide Manager, to select cases and samples of interest.

nPOD utilizes three databases to provide information about our donors and allow for online sample ordering: Aperio eSlide Manager, nPOD Data Portal, and nPOD DataShare. We recommend using the Aperio eSlide Manager site to view *basic* donor information along with slides that have been screened by the University of Florida nPOD Organ Processing and Pathology Core (OPPC). Additionally, the nPOD Data Portal can be used to view more *detailed* information about each donor and nPOD DataShare can be used to order desired samples.

The Aperio eSlide Manager is a very helpful resource for selecting cases based on histopathological information, as well as choosing specific paraffin (FFPE) and OCT blocks of interest. H&E slides are available to view for a large portion of the blocks within nPOD's biobank, as well as immunohistochemistry (IHC) staining for various markers such as insulin, glucagon, somatostatin, CD3, Ki67, and more.

Getting Started – Finding Cases and eSlides

After you login to Aperio eSlide Manager, you will see both icons (middle) and menu options (top left) listing Cases, Specimens, and eSlides **[Figure 1]**. The [Cases](#) option shows all nPOD cases as well as cases from other sources (various alphanumeric IDs such as HDLXXX and CVXX, see Clinical History or Supplemental Notes for source). The [Specimens](#) option lists sample types linked to cases, but is not a good place to search for information or slides. [eSlides](#) displays all slide images with their respective snapshots and will be discussed further on Page 3.

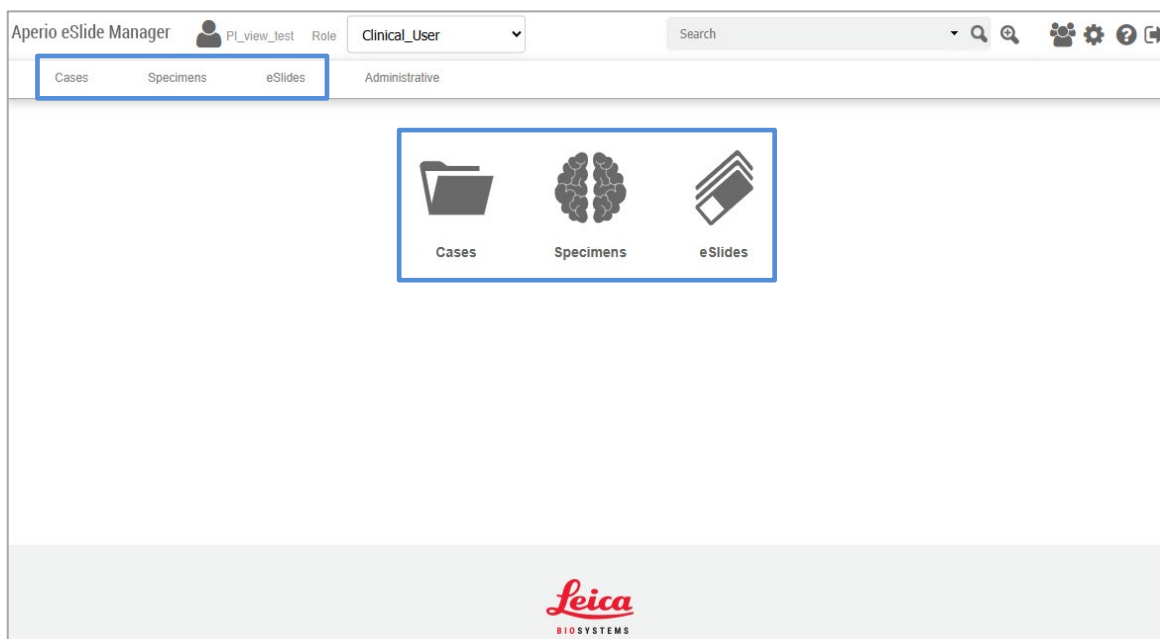


Figure 1. Aperio eSlide Manager main page and menu options.

Open [Cases](#) by clicking on either the icon or menu option on the main page. nPOD cases are listed by Case ID (6XXX) and can be sorted by any of the column headings **[Figure 2]**. Click the column heading (ie: CaseID) to sort by that

particular field or use the Sort button on the top left. Scroll to the right to see additional donor information at an overview. Open a specific case by clicking on the folder icon next to it to view case demographics, specimens, and slides. The eye button next to the folder icon will open all slides for that case in the default image viewer.

CasesSpecimenseSlidesAdministrative												
All Cases												
SortOpen Data		<Column 1-12 of 17>										
	CaseID ↓	Donor Type	AutoAb (RIA)	Age (yrs)	Gest. Age (wks)	Diabetes Duration (yrs)	Gender	Ethnicity	C-pep (ng/ml)	HbA1c	BMI	Clinical History
☐	6586	No diabetes	Negative	13.21			Male	Caucasian	6.83	5.1	27.4	Donor had a clinical history of visiting a hospital 3 days prior for vomiti...
☐	6584	No diabetes	Negative	22.53			Male	Caucasian	6.02	5.3	21.1	Donor had a clinical history of anxiety, depression, ADHD, panic attacks, d...
☐	6583	No diabetes	Negative	30.54			Male	Caucasian	10.55	5	24.8	Donor had no clinical history. Donor had surgical history of wisdom teeth r...
☐	6582	Autoab positive	GADA+	22.38			Male	Caucasian	2.67	5.6	23	Donor had a clinical history significant for depression, treated with medic...
☐	6580	T1D	IA2A+ mIAA+	9.25		7	Male	Caucasian	<0.02	9.7	23.1	Donor had a clinical history of a recent DKA episode 12 days prior to admis...
☐	6579	T1D	GADA+ mIAA+	13.91		1	Female	Caucasian	0.31	15	18.4	Donor had a clinical history of T1D x 14 months, treated with insulin. Also...

Figure 2. Cases list.

Once an individual case has been clicked, view details of the donor and the available specimens (ie: sample types – PanHead, Spleen, PLN, etc.) [Figure 3]. Click the eye button in the top right to view all slides available for the selected case in the image viewer, or click the ID of a specimen to view slide thumbnails of a specific sample type.

CasesSpecimenseSlidesAdministrative

Case Details

Age (yrs): 9.25Donor Type: T1DCaseID: 6580

All Cases

<>

CaseID: 6580

Donor Type: T1D

AutoAb (RIA): IA2A+ mIAA+

Age (yrs): 9.25

Gest. Age (wks):

Diabetes Duration (yrs): 7

Gender: Male

Ethnicity: Caucasian

C-pep (ng/ml): <0.02

HbA1c: 9.7

BMI: 23.1

Clinical History: Donor had a clinical history of a recent DKA episode 12 days prior to admis...

Histopathology: Ins-/Gluc+ islets, small to medium large sizes with highly irregular morpho...

Supplemental Notes: Negative for SARS-CoV-2 PCR testing via a bronchoalveolar lavage x2.

Transplant HLA: A*02/68, B*62/27, DR*04/12, DQ*03/05

Cause of Death: DKA

Tissue Recovery: Organ Donor

> Case Attachments (0)

Specimen Details

All Specimens

SortView ImagesOpen Data

<Column 1-5 of 5>

	Image	ID ↑	SampleID	Subproject	Comment
>	n/a	7116	PanHead		
>	n/a	7117	PanBody		

Figure 3. Case and specimen details of an individual nPOD case.

Alternatively to the [Cases](#) tab, browse through all viewable slides in the database by selecting the [eSlides](#) icon or menu option on the main page. eSlides can be sorted by any of the column headings, with “Slide ID” being the most useful field as this will show the slides in chronological order by time of scanning **[Figure 4]**. Each row will list the case, block number, and tissue type (SampleID) of the slide, along with a label thumbnail, Slide ID, image thumbnail, stain type, date on the label or slide, and unique Image ID.

Sort	View Images	Open Data	Column 1-11 of 12								
☐	Label	Slide ID ↓	Image	CaseID	Block #	SampleID	Stain	Aliquot ID	Date	Comment	ImageID
☐		131386		6375	04	PanBody	H&E	Paraffin	08-05-2026		213163
☐		131385		6649	06A	PanBody	H&E	Paraffin	08-05-2026		213162
☐		131384		6613	02A	PanTail	H&E	Paraffin	08-05-2026		213161
☐		131383		6228	03	PanTail	H&E	Paraffin	08-05-2026		213160
☐		131382		6669	04B	PanTail	H&E	Paraffin	08-05-2026		213159
☐		131381		6669	04A	PanTail	H&E	Paraffin	08-05-2026		213158

Figure 4. eSlides view.

Clicking on “Slide ID” will display slide, specimen, and case details **[Figure 5]**, while clicking on “Image ID” will open the slide image in Aperio WebViewer or ImageScope. Opening and viewing slide images will be discussed further on Page 5.

Case Details

Age (yrs): 28 Donor Type: Autoab positive CaseID: 6649

Specimen Details

SampleID: PanBody

All Specimens

ID: 10994

eSlide Details

Stain: H&E

All eSlides

ID: 131385

Slide ID: 131385

Stain: H&E

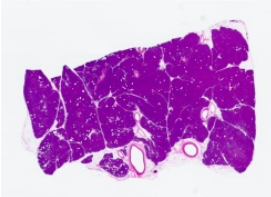
Date: 08-05-2026

Block #: 06A

Aliquot ID: Paraffin

Comment:

SampleID: PanBody



6649-06A-01

PanBody

H&E

Paraffin



nPOD

Figure 5. View when an individual “Slide ID” is clicked on the eSlides page.

Advanced Searching in Aperio

Another useful feature of Aperio is the “Advanced Search” function that allows you to search for specific eSlides or Cases using a number of fields. Click the magnifier icon in the top right corner of the screen to access the Advanced Search [Figure 6]. In the “Modify Search Criteria”, use the “Search For” dropdown to select either Cases or eSlides, depending on which you want to view.

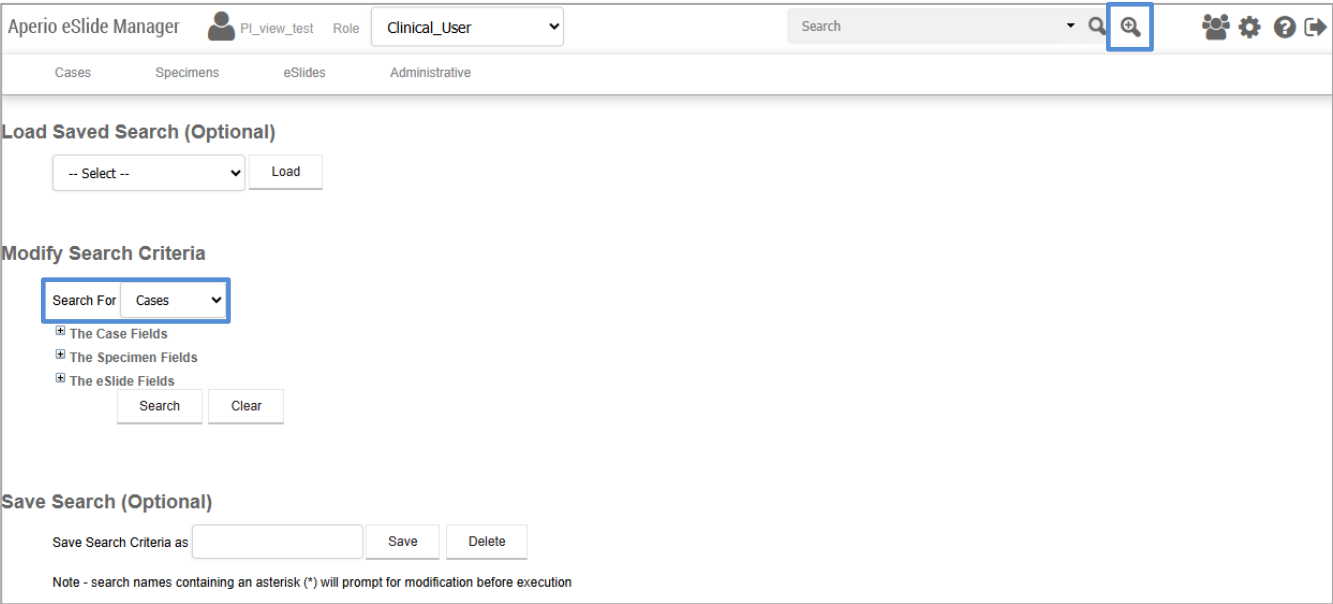


Figure 6. Advanced search page.

Then, select specific criteria using the plus sign dropdowns: “The Case Fields”, “The Specimen Fields”, “The eSlide Fields” [Figure 7a and 7b]. Criteria can be specified for Cases and eSlide fields in conjunction as shown below in [Figure 7c], an example search that would yield all PanBody slides stained for CD3+Insulin+Glucagon from female donors with Type 1 Diabetes. Searches may be saved for future use.

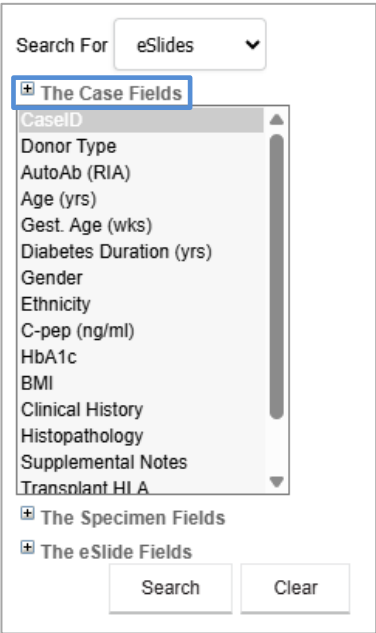


Figure 7a. Case Fields.

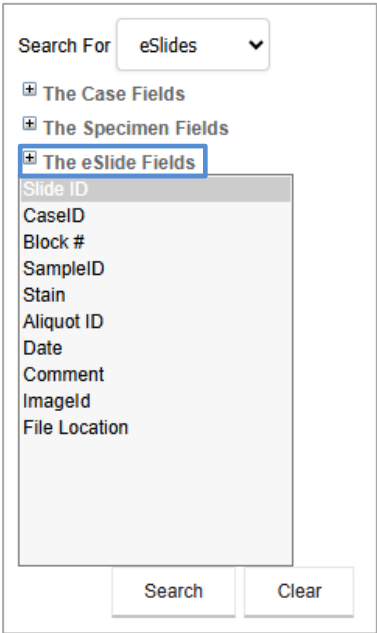


Figure 7b. eSlide Fields.

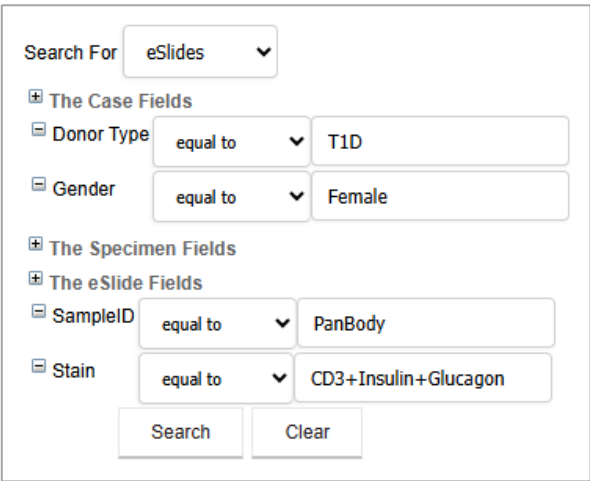
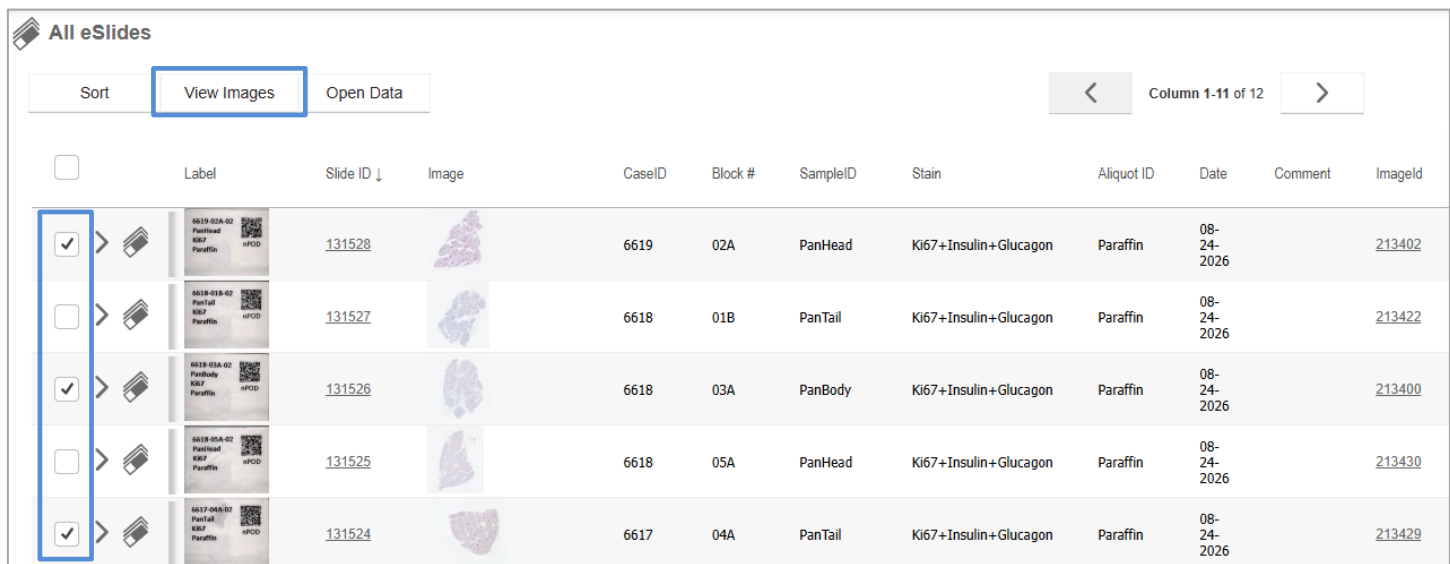


Figure 7c. Example of using both Cases and eSlide fields in conjunction for a narrowed search.

Viewing Images in Aperio WebViewer or ImageScope

There are two options for viewing slide images from nPOD's Online Pathology database: WebViewer, which is built into Aperio eSlide Manager on the web browser, or ImageScope, an application from Aperio. The default viewing platform is WebViewer, but the ImageScope software can be downloaded for free if using a PC. If using ImageScope, open the "DigitalSlides.sis" file that is downloaded after an "Image ID" is clicked. The following example figures will use the WebViewer, but the features are similar in ImageScope.

As previously mentioned, click on the "Image ID" of a slide, whether in a Case folder or on the eSlide pages, to open it. To open multiple images at once, select the check box on the left side for each desired slide, then click "View Images" on the top left [Figure 8].



	Label	Slide ID ↓	Image	CaseID	Block #	SampleID	Stain	Aliquot ID	Date	Comment	ImageID
☒	6619-02A-01_PanHead_Ki67_Paraffin	131528		6619	02A	PanHead	Ki67+Insulin+Glucagon	Paraffin	08-24-2026		213402
☐	6618-01B-02_PanTail_Ki67_Paraffin	131527		6618	01B	PanTail	Ki67+Insulin+Glucagon	Paraffin	08-24-2026		213422
☒	6618-03A-02_PanBody_Ki67_Paraffin	131526		6618	03A	PanBody	Ki67+Insulin+Glucagon	Paraffin	08-24-2026		213400
☐	6618-05A-02_PanHead_Ki67_Paraffin	131525		6618	05A	PanHead	Ki67+Insulin+Glucagon	Paraffin	08-24-2026		213430
☒	6617-04A-02_PanTail_Ki67_Paraffin	131524		6617	04A	PanTail	Ki67+Insulin+Glucagon	Paraffin	08-24-2026		213429

Figure 8. Selecting multiple slide images to open in WebViewer or ImageScope.

The selected slides will open in a new tab, with a "Slide Tray" sidebar that can be hidden using the large gray arrowhead [Figure 9]. To open images side by side as shown below, click the circle next to the slide in the tray which will "Pin" it (red icon). To view slide information, click the small, dark "i" in the top left corner of the slide in the tray.

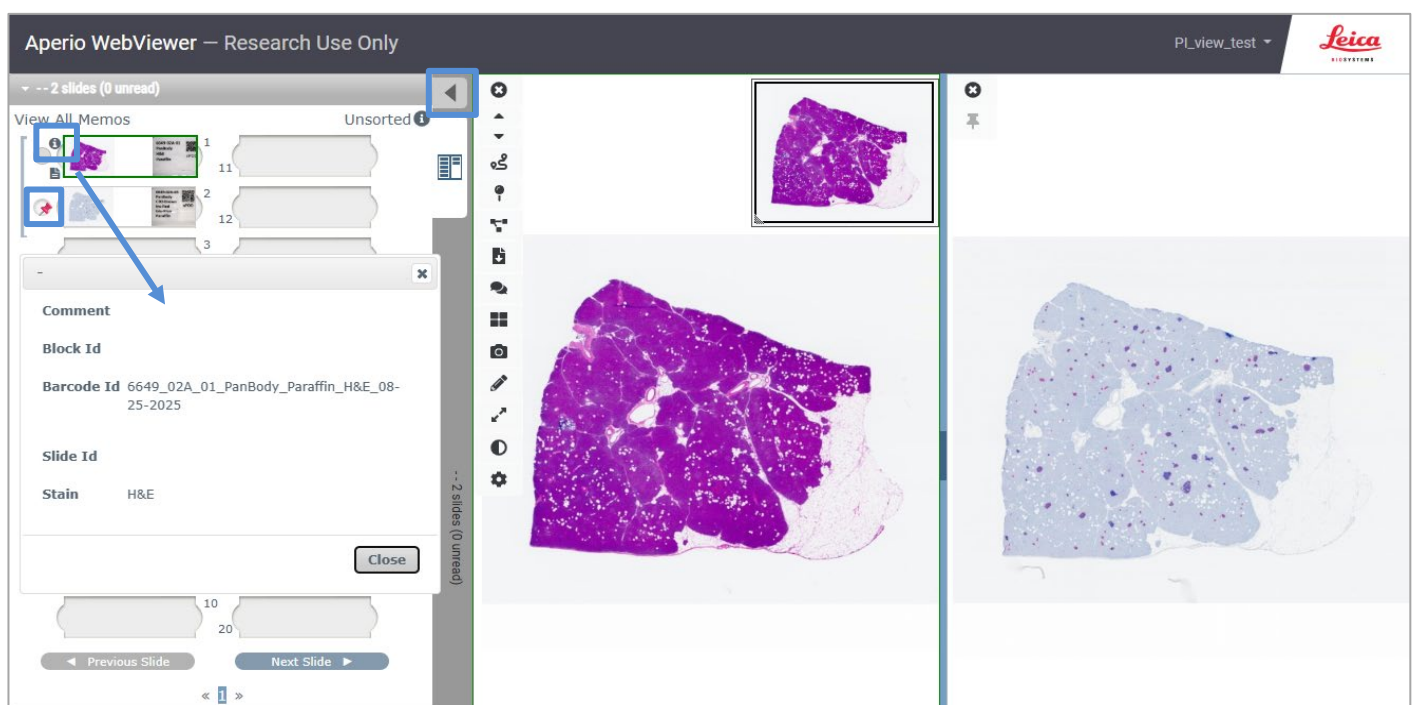


Figure 9. Example of viewing two slides, an H&E and an IHC stain, in Aperio WebViewer.

Aperio WebViewer and ImageScope allow the user to change the image magnification using a zoom slider or mouse scroll wheel, generate annotations, take image snapshots, and synchronize multiple images. The annotated image below shows the functions of different tools within Aperio WebViewer [Figure 10].



Figure 10. Annotated image of a slide in Aperio WebViewer. Similar tools and features are available in Aperio ImageScope.

Please Note:

If images or data from nPOD's Online Pathology database are used in your publications, please use standard nPOD nomenclature to refer to the images. Please also include an acknowledgement of the nPOD project and our organ donors and their families in the manuscript. For more information, please review our terms of use for nPOD Online Pathology images. Furthermore, you are highly encouraged to seek the assistance of institutional ethics or IRB review committees regarding any study you undertake when utilizing the information from this database for your research.