nPOD Online Pathology 101

Martha Campbell-Thompson

April 24, 2013
Welcome

• Asking questions:
  – Welcome at any step- others likely have the same
  – How- webinar chat function send to all-
    • If I don’t read your question, talk

• Please mute your phones to avoid background noise- use mute button or *69
Best Viewing

• Browser: Microsoft Internet Explorer
  – Known issues with Chrome and Firefox

• For access: see JDRF nPOD/For Investigators/Online Pathology Information
  – Users limited to those in research
  – Internet security requires individual accounts with no sharing

• Webinar available on the webpage
Digital Pathology Primer

• Background: Case Processing
  – Histology and IHC
  – Pathology Review

• Spectrum: Information Management System
  – Cases- Specimens - Slides
  – Advanced searches
  – Export data
  – Take photos
  – Link H&E and IHC images
Pancreas: head, body, and tail
- Paraffin blocks - 5-10 (OCT takes precedence over fixed when sample size is small)
- OCT blocks - 5-10 all regions or as indicated by size

PLN:
- OCT blocks – 3-5- as many as feasible depending on total numbers
- Cells - place several dissected LNs in 15ml tubes containing sterile RPMI, hold at refrigeration until shipped or processed. 1-4 tubes depending on numbers
- Frozen vials as for pancreas. Paraffin is optional.

Spleen and NonPLN: as for PLN.

Duodenal mucosa: as for pancreas.
Pancreas Subsections
# Standard Histology and IHC

<table>
<thead>
<tr>
<th>3-4 unstained serial Sections/block, 4um</th>
<th>Blocks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>02A, 04A PanHead</td>
</tr>
<tr>
<td></td>
<td>02A, 04A PanBody, Tail</td>
</tr>
<tr>
<td></td>
<td>01 Spleen</td>
</tr>
<tr>
<td></td>
<td>01 Bone Marrow, Lesion(s)</td>
</tr>
</tbody>
</table>

| H&E | 1. H&E |
| IHC | 2. Ki67+Insulin |
|     | 3. CD3+Glucagon |
|     | 4. PP (PanHead only) |

| Slide scanning | All stained slides |
nPOD Slide Labels

Original Labels

Case ID
Block Number
Sample ID
Stain

Current Labels

Case ID = 6189
Block Number= 01
Sample ID= Spleen
Stain = H&E

Within 2D code:
Slide Number
Aliquot ID (paraffin or OCT)
Date
Case Information

CaseID: 6070
Group: T1D “Pending” until lab data returned
AutoAb (Denver): IA-2A+ mIAA+ Denver Autoantibody Core (G. Eisenbarth)
Age (years): 22.6 (7 w/diabetes)
Gender: Female
Ethnicity: Caucasian
C-peptide (ng/ml): <0.05 Northwest Lipid Research (S. Marcovina)
HbA1c: 21.6
UNOS_BMI: 21.6
ClinicalHistory: “Accepted as” information, other
Histopathology: Ins+ islets (few); occ. Ki67+ islet cell. CD3+ Insulitis. Alternating blocks can be devoid of beta cells.
HiRes HLA: A*0201, 0205 B*3801, 5801 C*0701, 1203 DRB1*1001, 1601 DQA1*0101, 0102 DQB1*0501, 0502 DPA1*0103, 0201 DPB1*1301, 1401
Transplant HLA: A*02/02, B*38/58, DRB1*10/16, DQB1*05/05
UNOS HLA Class I: A1*02; B1*38; Cw1*07; A2*No second antigen detected; B2*58; Cw2*07; Bw4+; Bw6-
UNOS HLA Class II: DR1*10; DQ1*05; DPw1*Not Tested; DR2*16; DQ2*No second antigen detected; DPw2*Not Tested; DR51+; DR52-; DR53-;

UNOS- Data uploaded via Data Management Core (J. Kaddis)
Case Searches

Modify Search Criteria

Save

Note - search names containing an asterisk (*) will prompt for modification before execution
Histopathology Searches

Load Saved Search (Optional)

-- Select --

Modify Search Criteria

Search For

The Case Fields

Histopathology contains insulitis

The Specimen Fields

The Digital Slide Fields

Search Clear

Save Search (Optional)

Save Search Criteria as

Save Delete

Note - search names containing an asterisk (*) will prompt for modification before execution
Specimens = Tissues = SampleID

<table>
<thead>
<tr>
<th>Icon</th>
<th>Image</th>
<th>ID</th>
<th>Subproject</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>PanBody</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>PanTail</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Spleen</td>
</tr>
</tbody>
</table>
Slide Information

Modify Search Criteria

Search For: Cases

The Case Fields

The Specimen Fields

The Digital Slide Fields

- Slide ID
- Block ID
- CaseID
- Block #
- Slide_Number
- SampleID
- Stain
- Aliquot ID
- Date
- Comment
- Analysis Progress

Save Delete

An asterisk (*) will prompt for modification before execution.
Specimen & Slide Searches

Load Saved Search (Optional)

Select --
Load

Modify Search Criteria

Search For Digital Slides
Case Fields

Specimen Fields
SampleID equal to PanBody

Digital Slide Fields
Comment contains insulitis

Search Clear

Save Search (Optional)

Save Search Criteria as Save Delete

Note - search names containing an asterisk (*) will prompt for modification before execution
WebScope- Macs or Default PC
ImageScope
Aperio® ePathViewer Enables Easy Access to eSlides

The Aperio ePathViewer application allows mobile access to eSlide images from stored pathology data sets and is designed for optimal use with the iPad® mobile digital device, iPad®2 mobile digital device, and the new iPad® mobile digital device. A separate app is available for use on the iPhone® 4 mobile digital device and iPhone® 4S mobile digital device.

The application was carefully developed to provide important capabilities to support remote viewing for ePathology slides. Users can select images from active thumbnails of eSlide images, adjust the fixed magnification up to the maximum from the original scan, and display eSlide metadata. In addition, the current view snapshot can be emailed if needed.

For quick reference, the application has built-in default websites, including the Juan Rosai Collection of Surgical Pathology Seminars, as well as Aperio sample images from College of American Pathologists (CAP).

Download the ePathViewer Instruction Guide Here.

- First Name: 
- Last Name: 
- Organization: 
- Job Title: 
- Phone: 
- Email: 
- Postal Code: 
- Which Best Describes Your Area of Interest? 
  - Healthcare  
  - Life Science
- Call Me: 
  - Yes
  - No
- Where Did You Hear About Aperio?: 

Read the ePathViewer FAQs

Get the ePathViewer App from the App Store:
- Download ePathViewer App for the iPad
- Download ePathViewer App for the iPhone
Mingder Yang return your user information via email.
Customize Your Account

User Details

Login: thompmc
Authentication Type: Spectrum
Full Name: Martha Campbell-Thompson
Phone Number:
E-mail Address: mct@ufl.edu
New Password:
Retype New Password:
Spectrum Start Page: Welcome Page (default)
Enable Auto-View Images: 
Clinical Viewing Mode: 

Save  Cancel
Let’s Go!