PPMI Biologics Training Webinar

Presented by: Alison Ansbach, MS and Mark Frasier, PhD
Overview

• Equipment
• Supplies (Coriell and Covance)
• Collection and Processing
• Labelling
• Entering Data in eClinical Database
• Shipping
• Quality Control
• Contact Information
Equipment
Phlebotomy Equipment

• You must supply
  – Gloves
  – Alcohol wipes
  – Butterfly needles
  – Tourniquet
  – Gauze Pad
  – Bandage
  – Microcentrifuge tube rack
  – Sharps bin and lid
  – Crushed Ice
  – Dry ice
  – Pipets and pipet tips

• So stock up now!
Required Equipment

• 4 °C and Room Temperature Centrifuge
• -80 °C Freezer
Supplies
(Covance and Coriell)
Initial Supply

Covance: 6 screening visits

Coriell:
- 6 Screening kits
- 4 V01 kits
- 4 V02 kits
- 4 LP Trays
- 1 Supplemental Supplies Kit
General Clinical Labs: Covance Blood Work

• At Screening and annual visits thereafter
• Covance will provide initial supply to kits
  – 3 tubes:
    • Hematology and Differential panel
    • Chemistry Panel
    • Coagulation Group (Only at screening)

• Automatic Resupply

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<thead>
<tr>
<th>VISIT</th>
<th>Screening</th>
<th>V04/Month 12</th>
<th>V06/Month 24</th>
<th>V08/Month 36</th>
<th>V10/Month 48</th>
<th>V12/Month 60</th>
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<td>-1 month</td>
<td>Month 12 +/- 30 days</td>
<td>Month 24 +/- 30 days</td>
<td>Month 36 +/- 30 days</td>
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Covance Kits

SERUM

Chemistry Panel

One 2.5 mL gold top serum separation tube. Fill tube completely. It is important to thoroughly mix the blood with the clotting activation agent by inverting the tube not less than five times. Allow blood to clot for 30 minutes (tube standing upright). Centrifuge at 1500 to 2000 x g for 15 minutes until clot and serum are separated by a well-formed polymer barrier. Use pipette provided to transfer all the serum into the 5 mL plastic vial labeled CHEMISTRY.

GD25

GP35

SV05

WHOLE BLOOD

Hematology & Differential Panel

Draw whole blood samples last except when collecting coagulation group at the same visit. One 2 mL lavender top tube. Fill tube completely. Mix immediately by gently inverting the tube at least 8 to 10 times. Make blood smears with blood from the lavender top tube using the Diff-Safe dispenser. Make two slides. Allow to air dry and place in blue slide mailer. **Remove the Diff-Safe from the tube!** Do not forget to ship the tube after using it for the hematology slides.

**NOTE:** The best source of information in confirmation of hematology results is the blood smear slide prepared by you at the time of draw. Your diligence in slide preparation increases the opportunity to provide hematology results.

LD02

DSAF

S2SM
Covance Kits

PLASMA
Coagulation Group
Draw this tube last.
One 2.7 mL blue top sodium citrate tube. Fill tube completely. Mix immediately by gently inverting the tube at least 8 to 10 times. Centrifuge at 1500 to 2000 x g for 15 minutes until cells and plasma are well separated. Use pipette provided to transfer all the plasma into the 3 mL plastic vial labeled COAGULATION GROUP FROZEN. Freeze immediately at -20°C or -70°C until shipment.

BCP3

GP35

SV03

Frozen
Day of collection
Ordering Kits

- Coriell provides materials to collect and ship samples
- Each site will place kit orders through Coriell’s online database
- Please allow turnaround time of at least one week
Collection and Processing (Research Samples)
Submitting samples to Coriell/BioRep: 3 types of visits, 3 types of kits

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<tr>
<th>Sample</th>
<th>SCREENING VISIT</th>
<th>Baseline/V02/V04/V06/V08/V10/V12</th>
<th>V01/V03/V05/V07/V09/V11</th>
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<tr>
<td>Blood for DNA extraction</td>
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<td>Blood for RNA extraction</td>
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Standardization and Quality are Key!!

Be sure to carefully review the biologics manual prior to the first subject visit and reference during visits as needed.
Screening Visit: Blood for DNA Extraction

- Fill one 8.5ml yellow-top tube with blood
- Keep blood at room temp - DO NOT refrigerate or freeze
- Ship to Coriell/BioRep same day as blood is drawn
Type of specimen to be collected: 1 yellow top tube of blood
Packaging & Shipping the Screening Kit
Baseline, 6 month, and Annual Visits: Plasma, Serum, Whole Blood, RNA, Urine & CSF

- Fill one each of the following blood tubes:
  - PAXgene (RNA)
  - Large (10ml) **Purple** top (plasma)
  - Small (5ml) **Purple** top (whole blood)
  - **Red** top (serum)

- Collect urine and CSF
- Process each specimen per protocol
- Ship to Coriell/BioRep on dry ice
Baseline/V02/V04/V06/V08/V10/V12

Kit Contents

Types of specimen to be collected:

1 red top tube of blood (for serum)
1 [10ml] purple top tube of blood (for plasma)
1 [5ml] purple top tube of blood (for whole blood)
2 PAXgene blood RNA tubes
Urine sample
Cerebrospinal fluid
PaxGene Tube Preparation

1: Store tubes at room temperature, label with pre-printed “RNA” labels prior to blood draw.

2: Collect blood into one PAXgene tube, allowing blood to flow 10 seconds and ensuring blood has stopped flowing each time.

3: Immediately after blood draw, invert tube gently 8-10 times to mix samples. Repeat Step 2 and 3 for second tube.

4: Incubate tubes upright at room temperature for 24 hours before freezing samples.

5: After 24 hour incubation at room temperature store tubes at -80°C until shipment.
Plasma Preparation

1: Store tubes at room temperature, label with pre-printed “Plasma” labels prior to blood draw.

2: Collect blood in Plasma Tube, allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

3: Immediately after blood draw, invert tubes 8-10 times to mix samples.

4: Within 30 minutes of blood draw, centrifuge samples at 4°C, 1500 x g for 15 minutes.

5: Label micro centrifuge tubes with preprinted “Plasma” labels. Use transfer pipette to aliquot 1.5 ml samples of plasma. Store plasma aliquots at -80°C until shipment.
Whole Blood Preparation

1: Store tube at room temperature, label with pre-printed “WB” label prior to blood draw.

2: Collect blood, allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

3: Immediately after blood draw, invert tube 3 times to mix sample.

4: Immediately after inversion, freeze the sample in a -80 freezer until ready to ship.
1: Store tubes at room temperature, label with pre-printed “Serum” labels prior to blood draw.

2: Collect blood in Plasma Tube, allowing blood to flow for 10 seconds and ensuring blood flow has stopped.

3: Immediately after blood draw, invert tubes 8-10 times to mix samples.

4: Allow blood to clot at room temperature for 15 minutes.

5: Within 60 minutes of collection, centrifuge samples at 4°C, 1500 x g for 15 minutes.

6: Label micro centrifuge tubes with preprinted “Serum” labels. Use transfer pipette to aliquot 1.5 ml samples of plasma. Store plasma aliquots at -80°C until shipment.
Urine Sample Preparation

• Collect in the cup provided
• Transfer to 15 mL Conical tube
• Spin at 4 °C for 15 minutes at 2500xg
• Label 15 mL transfer tube, pipette supernatant into clean tube
• Freeze on dry ice or at -80 °C immediately
Lumbar Puncture Tray

- Purple top 2ml vial for clinical lab
- Clear 2ml vials for repository
LP Procedure

• 24g Sprotte needle provided in custom kit
• Label and Pre-cool aliquot tubes on ice—tubes NOT in LP tray but in blood kits
• Collect first 1-2 cc’s, place in purple top tube
  – Send within 4 hours of collection to local lab for routine analysis (protein, cell count, glucose)
• Collect next 15 cc’s CSF and transfer to 15 mL conical tubes
  – Immediately mix in 15 mL conical tubes
  – Spin at 2000x g for 10 minutes at ROOM TEMPERATURE
  – Immediately aliquot approx. 1.5 mL into pre-cooled aliquot tubes
  – Freeze at -80 °C immediately
Packaging & Shipping the Baseline Kit
V01/V03/V05/V07/V09/V11: Plasma, Serum, Whole Blood & RNA

• Fill one each of the following blood tubes:
  
  – PAXgene (RNA)
  – Large (10ml) Purple top (plasma)
  – Small (5ml) Purple top (whole blood)
  – Red top (serum)

• Process each specimen per protocol
• Ship to Coriell/BioRep on dry ice
V01/V03/V05/V07/V09/V11

Kit Contents

Type of specimen to be collected:
1 red top tube of blood (for serum)
1 [10ml] purple top tube of blood (for plasma)
1 [5ml] purple top tube of blood (whole blood)
2 PAXgene blood RNA tubes
Packaging & Shipping the V01/V03/V05/V07/V09/V11 Kit
Labelling Samples
Labelling Biologic Samples

• Labels provided by the CTCC
• Labels are pre-printed with:
  – Study name (PPMI)
  – Specimen type (Serum, Plasma, CSF, etc.)
  – Subject ID number (based on block assigned to your site)
  – Visit number (BL, V01, V02, etc.)
Labelling Biologic Samples

• ENSURE **ALL SAMPLES ARE PROPERLY LABELED!**

• You should label **each** tube during processing so samples do not get mixed

• You must label **each** aliquot tube to ensure proper identification of each sample upon receipt at Coriell/BioRep
Entering Data into EDC
Timely Data Entry

• At the time samples are collected, ensure all information is recorded accurately on the DNA Sample, Laboratory Procedures and LP data forms
• Data captured in EDC will be used for sample reconciliation
• Information from the CRF source worksheets should be entered on the day of the visit (or within 2 business days per protocol)
# DNA Sample CRF

## PPMI DNA SAMPLE

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<th>Column 2</th>
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1. Blood sample for DNA: (0 = Not Collected, 1 = Collected)  
   1a. Date blood sample for DNA collected:  
   1a. MM | DD | YYYY |

2. Volume of blood collected: (milliliters)  
   2. |

3. Date DNA sample shipped:  
   3. MM | DD | YYYY |
### Whole Blood Sample CRF

**PPMI**  
**WHOLE BLOOD SAMPLE**

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1. Whole blood for storage and analysis: (0 = Not collected, 1 = Collected)  
   - 1. 

1a. Date of whole blood collection:  
   - 1a. 

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2. Comments:

   
   
   
   
   

Laboratory Procedures CRF

PPMI
LABORATORY PROCEDURES

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1. Date of last intake of food:

1a. Date of last intake of food: (24-hour clock)

2. Is subject on medication for PD? (0 = No, 1 = Yes)

2a. Date of most recent PD medication dosing:

2b. Time of most recent PD medication dosing: (24-hour clock)

Urine Sample Collection

3. Urine for storage and analysis: (0 = Not collected, 1 = Collected)

3a. Date of urine sample collection:

3b. Time of urine sample collection: (24-hour clock)

3c. Time of centrifugation: (24-hour clock)

3d. Rate of centrifugation: (xg)

3e. Duration of centrifugation: (minutes)

3f. Indicate temperature at which tube was spun: (Centigrade)

3g. Time urine sample placed in freezer: (24-hour clock)
Lab Procedures CRF – page 2

Blood Sample Collection

4. Date blood samples collected:
   4. MM DD YYYY

(RNA – PAXgene RED TOP)

5. Blood for PAXgene/RNA: (0 = Not collected, 1 = Collected)
   5.

5a. Time of PAXgene/RNA sample collection:
   (24-hours at room temperature)
   5a. [time]

5b. Date PAXgene/RNA samples placed in freezer:
   5b. MM DD YYYY

5c. Time PAXgene/RNA samples placed in freezer:
   5c. [time]

5d. Storage temperature: (Celsius)
   5d. [temperature]

(PLASMA – EDTA PURPLE TOP)

6. Blood for plasma: (0 = Not collected, 1 = Collected)
   6.

6a. Time of plasma sample collection: (24-hour clock)
   6a. [time]

6b. Time of centrifugation: (24-hour clock)
   6b. [time]

6c. Rate of centrifugation: (xg)
   6c. [rate]

6d. Duration of centrifugation: (minutes)
   6d. [duration]

6e. Indicate temperature at which tube was spun: (Celsius)
   6e. [temperature]

6f. Total volume aliquotted after spinning: (milliliters)
   6f. [volume]

6g. Total number of aliquot tubes:
   6g. [number]

6h. Time plasma samples placed in freezer: (24-hour clock)
   6h. [time]

6i. Storage temperature: (Celsius)
   6i. [temperature]
(SERUM – RED TOP)

7. Blood for serum: (0 = Not collected, 1 = Collected)
   7a. Time of serum sample collection: (24-hour clock)
   7b. Time of centrifugation: (24-hour clock)
   7c. Rate of centrifugation: (xg)
   7d. Duration of centrifugation: (minutes)
   7e. Indicate temperature at which tube was spun: (Celsius)
   7f. Total volume aliquotted after spinning: (milliliters)
   7g. Total number of aliquot tubes:
   7h. Time serum samples placed in freezer: (24-hour clock)
   7i. Storage temperature: (Celsius)

(GENERAL LABS)

8. Blood for clinical labs: (0 = Not collected, 1 = Collected)
   8a. Date shipped to central lab:
       8a. MM DD YYYY
Lumbar Puncture CRF

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LUMBAR PUNCTURE

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A. Date of last intake of food: (24-hour clock)
   MM DD YYYY

B. Time of last intake of food: (24-hour clock)
   MM DD YYYY

C. Is subject on medication for PD? (0 = No, 1 = Yes)
   0 = No, 1 = Yes

Ca. Date of most recent PD medication dosing:
   MM DD YYYY

Cb. Time of most recent PD medication dosing (24-hour clock)
   MM DD YYYY

1. Lumbar puncture for collection of CSF:
   (0 = Not collected (comment required), 1 = Collected)

2. Date CSF collected:
   MM DD YYYY

3. Indicate needle used to collect CSF:
   1 = 20g Quincke (sharp beveled) needle
   2 = 22g Quincke (sharp beveled) needle
   3 = 25g Quincke (sharp beveled) needle
   4 = 22g Sprotte (atraumatic) needle
   5 = 24g Sprotte (atraumatic) needle (preferred)
   6 = 18g

4. Indicate method of collecting CSF:
   1 = Gravity
   2 = Syringe suction

5. Lumbar puncture performed at the:
   1 = L3-L4 Interspace
   2 = L2-L3 Interspace
   3 = Unknown

6. Subject position when lumbar puncture performed:
   1 = Sitting, leaned over (preferred)
   2 = Lying, curled up on side
   3 = Unknown

7. Time CSF collected: (24-hour clock)
   MM DD YYYY

Note to record time of last meal.

Note to record info about PD meds (if applicable).
Record results from the local lab analysis of the CSF.
22. Was a fluoroscopy performed? (0 = No, 1 = Yes)

22a. Date of fluoroscopy:

23. Was a lumbar spine film performed? (0 = No, 1 = Yes)

23a. Date of spine film:
Shipping Samples
(Covance and Coriell/BioRep)
Covance Shipping Instructions

• Ambient Day of Collection
  – Hematology and Differential
  – Chemistry Panel

• FROZEN Day of Collection
  – Coagulation Group (Screening Only)

• Packaging and Shipping Instructions
  – Refer to Covance Laboratory Manual
Coriell/BioRep Sample Record Shipping Form

PPMI
Sample Record Summary and Shipment Notification

Site Number:                  Principal Investigator:
Coordinator:                  Telephone:                  Email:

Date Sample(s) Shipped:

Instructions: This form must be completed for shipment of all research samples. Notify Coriell or BioRep (email, fax or phone) in advance of shipment using contact information below. Place a copy in the shipment box and file a copy of the completed form in the study binder. Site will be contacted should there be issues with samples noted upon receipt or shipment did not include this form.

Please be sure to list the Subject ID that corresponds to the pre-printed labels. List only one “Specimen Type” per row.

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<thead>
<tr>
<th>Subject ID Number</th>
<th>Specimen Type (RNA, DNA, WB, Urine, CSF, Plasma, etc.)</th>
<th>Visit Type (BL, V01, V02, etc.)</th>
<th># of Tubes</th>
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Total number of tubes: 

Courier (check one):

[ ] FedEx [ ] DHL [ ] Other (specify):

Tracking Number:

Contact Information:

Coriell - U.S. Sites
Alison Ansbach
ansbach@coriell.org
Fax: 856-966-5067
Ph: 856-757-9756

BioRep – European Sites
PPM@biorep.it
Fax: +39 02 58014971
Ph: +39 02 58014350

v.08.09.10
Quality Control of Research Samples
QC Feedback to Sites

- **Purpose:** Provide feedback to sites to confirm whether procedures are being followed per the research lab manual
- **QC Checklist Form** completed for first 2 subject’s samples submitted (SC and BL visit)
- Coriell and BioRep completes upon receipt of the SC and BL visit and emails completed form back to site
- **Site should file copy in study binder**
Summary

• Adhering to protocol and Manual is CRITICAL!

• Do not hesitate to contact CTCC/Coriell/BioRep with any questions or feedback
Coriell Contact Info

Coriell
Alison Ansbach
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aansbach@coriell.org

www.coriell.org
BioRep Contact Info

*BioRep*

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