



Biospecimen Exchange for Neurological Disorders

NINDS Udall Centers of Excellence for  
Parkinson's Disease Research:  
University of Michigan

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BIOSPECIMEN COLLECTION & PROCESSING

# Overview

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1. Specimen uniformity and quality
2. Site Equipment
3. Procedures
  - Kit Contents and Ordering
  - Sample Labelling
  - Sample Collection and Processing
  - Shipping Samples
  - Non-Conformance
4. Contact Information

# Specimen Uniformity and Quality

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GENERAL REMINDERS

# Specimen Standardization and Quality

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Most biomarkers are sensitive to *time* and *temperature*

- Standardization of processing is key
- Specimens must be processed within 2 hours of collection
- Reference the *BioSEND Biomarker Specimen Collection, Processing, and Shipment Manual* as needed
- Do not replace or supplement any kit components without first receiving approval from BioSEND/NINDS

Questions? Email [biosend@iu.edu](mailto:biosend@iu.edu)

# Site Consumables and Equipment

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*Sites will need to supply the following items:*

- Gloves
- Alcohol wipes
- Butterfly needles
- Tourniquet
- Gauze pads
- Bandages
- Microcentrifuge tube rack
- Sharps bin and lid
- Pipettes and pipette tips

# Procedures

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MAINTAINING SPECIMEN UNIFORMITY AND QUALITY

# Biospecimen Collection Protocol

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	BL
DNA (2 x 6ml)	X

# Kit Contents and Ordering

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- All sites will be sent a Supplemental Kit with their first kit shipment
  - Contains extra blood collection tubes and processing supplies
  - May be used to replace items in study visit kits
- Study Visit Kits should be ordered as soon as visits are planned
  - Contains collection, processing, and shipping supplies specific to each visit
  - Includes barcoded labels
  - The supplies/labels in each study visit kit are intended for that visit only



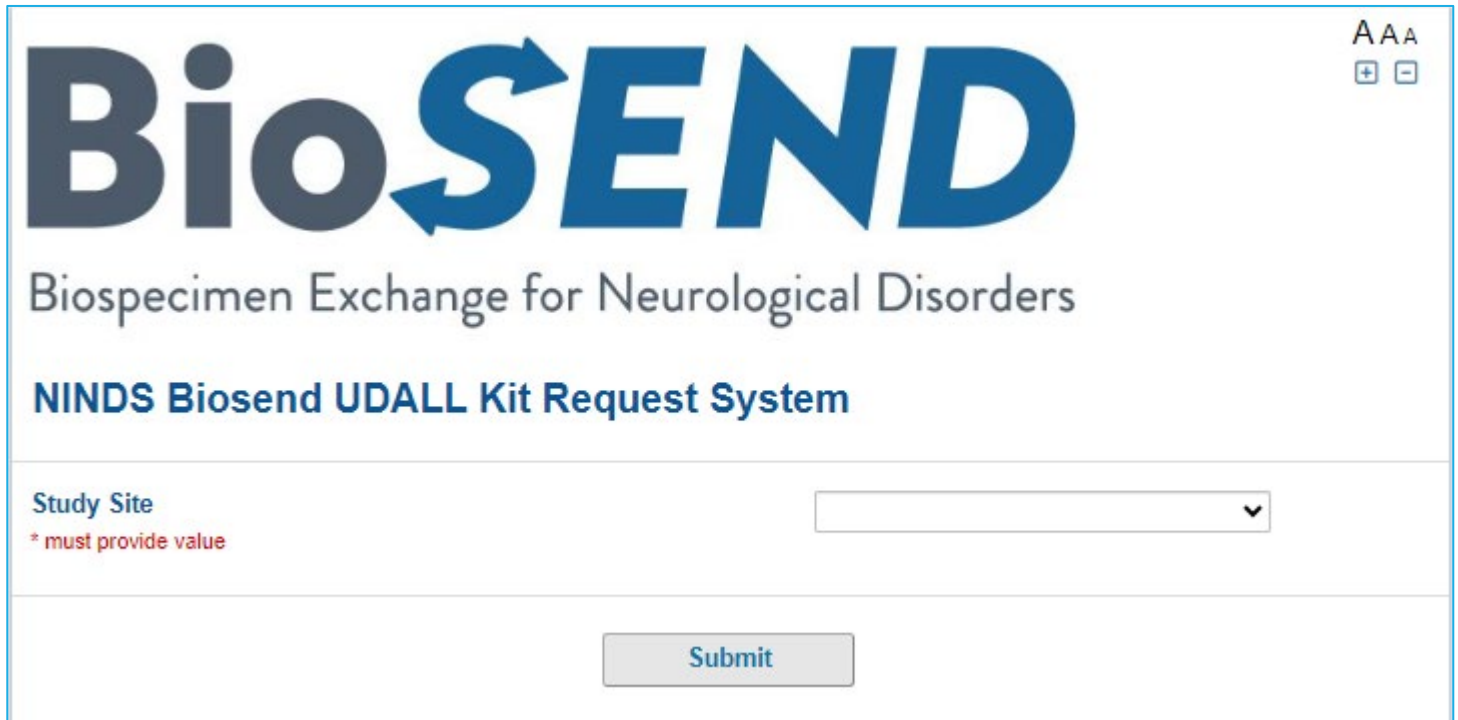
# Kit Contents and Ordering – REDCap Survey

<http://kits.iu.edu/biosend/udall>

Order kits online through the Kit Request Module for:

- Blood Kits
- Extra Supplies

Please provide as much notice as possible when ordering kits and/or supplies.



The screenshot shows the 'Biosend UDALL Kit Request System' interface. At the top, the 'BioSEND' logo is displayed in large blue letters, with the 'S' containing a circular arrow icon. Below the logo, the text 'Biospecimen Exchange for Neurological Disorders' is shown in a smaller font. Underneath that, the title 'NINDS Biosend UDALL Kit Request System' is displayed in a bold blue font. In the top right corner, there are three small icons: 'A A A' and two square buttons with '+' and '-' signs. The form contains a single input field labeled 'Study Site' in blue text. Below this label, a red asterisk and the text '\* must provide value' are visible. The input field itself is empty and has a small downward arrow icon on its right side. At the bottom center of the form, there is a grey rectangular button with the word 'Submit' in blue text.

# Kit Contents and Ordering: Confirm Site Info

UDALL Kit Request Module

<b>Study Site</b> <small>* must provide value</small>	Indiana Univers	Select your site from the drop-down list
Indiana University School of Medicine Carolyn Dunifon Dept. of Medical & Molecular Genetics 351 West 10th Street, TK-318 Indianapolis, IN 46202-3002 (317) 274-5751 cdunifon@iu.edu		
Verify contact information and update if needed		
<b>Is the contact name above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input checked="" type="radio"/> No	reset
<b>New Contact Name</b> <small>* must provide value</small>	Claire Wegel	
<b>Is the shipping address above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No	reset
<b>Is the e-mail address above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No	reset
<b>Is the phone number above correct?</b> <small>* must provide value</small>	<input type="radio"/> Yes <input type="radio"/> No	reset

# Kit Contents and Ordering: Kit Types

## UDALL Kit Request Module

- Kits are not specific to a subject or time point. After collection, sites will indicate the subject and time point to which BioSEND should link the samples.

<b>Kit Type</b> **Please allow two weeks for shipment** * must provide value	<input checked="" type="radio"/> <b>Baseline Visit Kit</b>
	<input type="radio"/> <b>Extra Supplies</b>
Please specify in comments if you need kits before the standard two week shipment time.	
<b>Baseline Visit Kit Quantity</b> * must provide value	<input type="text" value="1"/>
<b>Comments</b>	<div></div> <div>Expand</div>

# Kit Contents and Ordering: Kit Breakdown

UDALL Kit Request Module

Comments

Each Baseline Kit Contains:

2 Purple-Top EDTA Tubes (6 ml), plastic  
1 Biohazard bag with absorbent sheet  
1 Ambient Shipper  
1 UPS Overpack  
1 Airway bill envelopes  
1 Specimen Label Set

Submit

Kit contents of selected kit will appear at the bottom of the page

# Kit Contents and Ordering: Blood Kit

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# Kit and Supply Ordering

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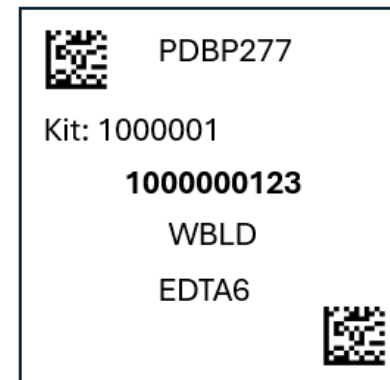
- Click “Submit” to send order to BioSEND; staff will confirm receipt of your order
- Please allow two week turn-around time for kit shipments
- If urgent request needed, please note date needed by in comments and email BioSEND. We cannot guarantee urgent orders, but we will do our best to accommodate.
- BioSEND will send confirmation of shipment and tracking number when supplies ship

# Sample Labelling: Example Labels

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## Labels are provided by Indiana University

- Please check that all samples are properly labelled to ensure correct identification by IU
- If do not have enough labels to complete a visit, please contact IU *immediately*
- Labelling the tubes during processing prevents sample mix-ups

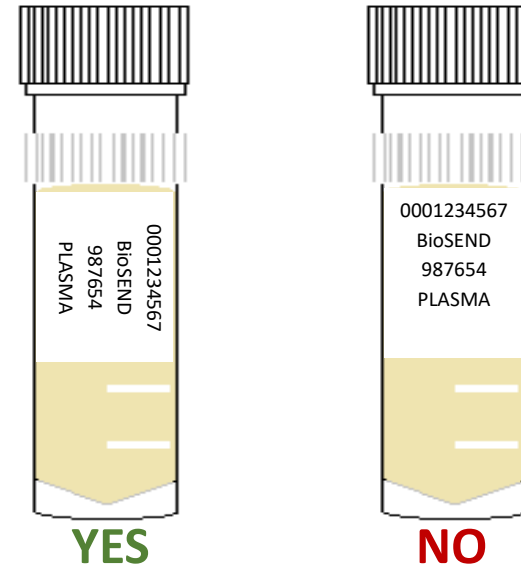


# Sample Labelling: Label Placement

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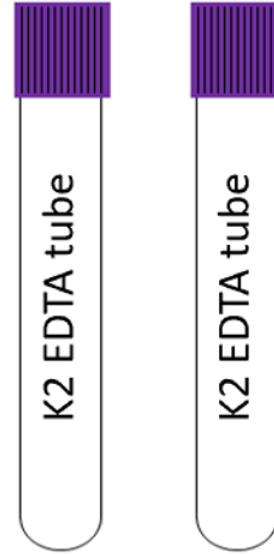
Please...

- Label all collection tubes before collecting samples
- Label only 1 subject's tubes at a time to avoid mix-ups
- Wrap the label around the tube horizontally - label position is important for all tube types
- Make sure the label is completely adhered by rolling between your fingers



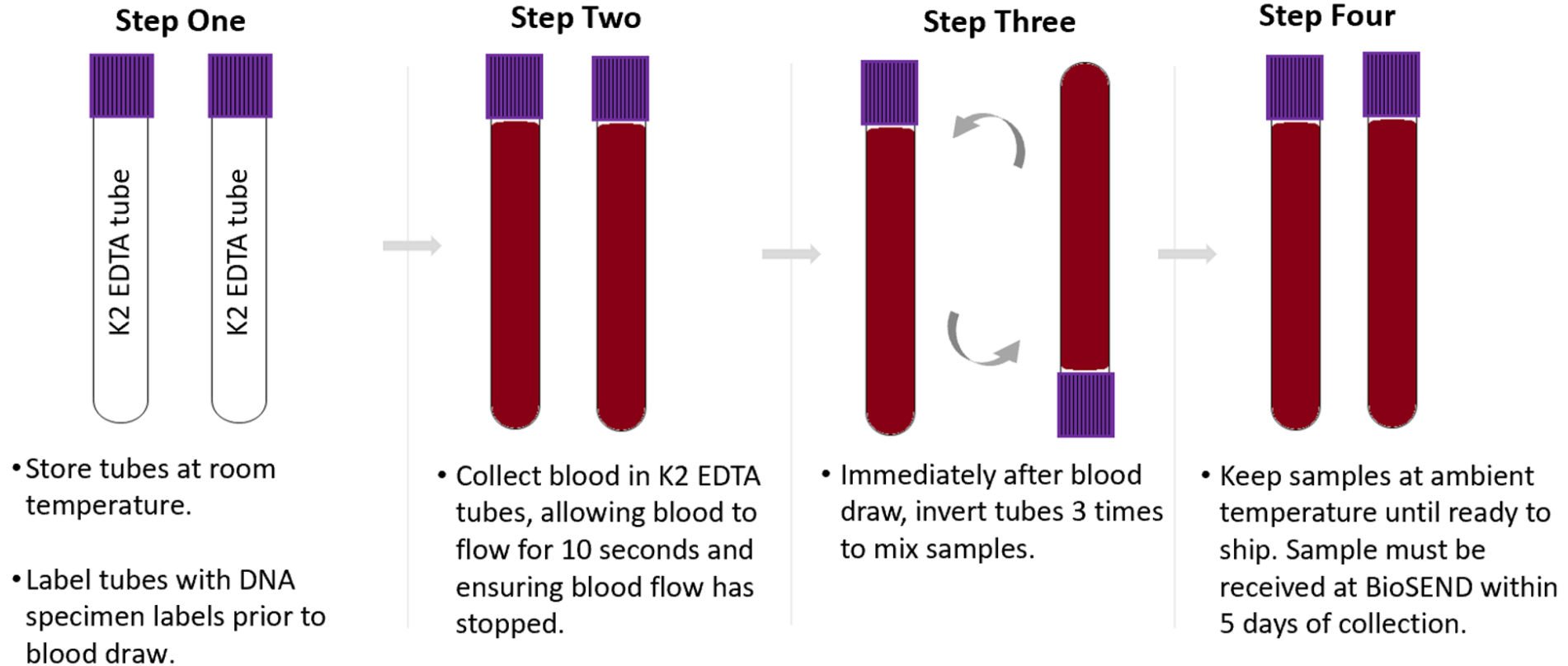


# Sample Collection and Processing



# Sample Collection and Processing: DNA

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# Sample Collection and Processing: Issue #1

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## Troubleshooting Blood Collection

### Issue #1: Tube with little/no vacuum

- Always check expiration date on the tube before beginning blood draw and discard expired tubes
- Store tubes at “room temperature” – extreme temperature can affect vacuum
- Keep extra vacutainer tubes from supplemental kit nearby during blood draw to replace “bad” tubes
- If this is a frequent occurrence, report tube type and lot number to IU.

# Sample Collection and Processing Form

Direct link:

<https://redcap.link/UDALLMichiganSampleForm>

First part captures basic subject and visit information



Returning?

AAA



## Biospecimen Exchange for Neurological Disorders

Please verify/update the information below. When you click the "Submit" button below, a PDF copy of the Sample Record and Shipment Notification Form will be emailed to you.

Please print a copy of that document and **include it in the shipping container.**

### BioSEND UDALL Michigan Study

Study Site

Email address of staff member completing this form

*Note: A copy of the completed sample form and the shipping manifest will be sent to this address.*

GUID:

Sex (used for DNA quality control)

Visit





IU Kit Number

# Sample Collection and Processing Form

Direct link:

<https://redcap.link/UDALLMichiganSampleForm>

Second part captures collection information

Date of venipuncture blood collection	<input type="text"/>		Today	M-D-Y
Time of venipuncture blood collection	<input type="text"/>		Now	H:M
Use 24 Hour clock				
Date participant last ate	<input type="text"/>		Today	M-D-Y
Time participant last ate	<input type="text"/>		Now	H:M
<b>WHOLE BLOOD for DNA</b>				
Number of DNA tubes shipped:	<input type="text"/>			
Two 6ml EDTA tubes expected				
DNA notes	<div></div>			
Expand				

# Sample Collection and Processing Form

Direct link:

<https://redcap.link/UDALLMichiganSampleForm>

PDF form of responses will be emailed to you. **Print a copy of the Shipping Manifest and include with shipment.**

## UDALL Michigan Sample Record and Shipment Notification Form

Protocol: UDALL Michigan

Please verify/update the information below. When you click the "Submit" button below, a PDF copy of the Sample Record and Shipment Notification Form will be emailed to you.

Please print a copy of that document and include it in the shipping container.


Study Site	<input type="radio"/> University of Michigan
Email address of staff member completing this form	<input type="text"/>
Note: A copy of the completed sample form and the shipping manifest will be sent to this address.	
GUID:	<input type="text"/>
Sex (used for DNA quality control)	<input type="radio"/> Male <input type="radio"/> Female <input type="radio"/> Other
Visit	<input type="radio"/> BL
ST Number/ Kit Number	<input type="text"/>
Date of venipuncture blood collection	<input type="text"/>
Time of venipuncture blood collection	<input type="text"/> (Use 24 Hour clock)
Date participant last ate	<input type="text"/>
Time participant last ate	<input type="text"/>
<b>WHOLE BLOOD for DNA</b>	
Number of whole blood tubes shipped:	<input type="text"/> (Two 6ml EDTA tubes expected)
Blood collection/shipping notes	<input type="text"/>

# Shipping Samples: Ambient

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- Ambient samples should be shipped Monday-Thursday only
- If collected on a Friday, hold sample at room temperature and ship to BioSEND the following Monday
- Sample(s) must be received at BioSEND within 5 days of collection

Shipping Samples – UPS: <https://kits.iu.edu/UPS>



# INDIANA UNIVERSITY

## SCHOOL OF MEDICINE

### and Affiliated Biorepositories

Search for address

Code

Company

Contact

Address 1

Address 2

Address 3

City

State/Province

Postal Code

Country/Territory

Icahn School of Medicine - Mt. Sinai

Kenny Persaud

1425 Madison (Icahn Building)

Icahn L4 39

New York

NY

10029

United States

Shipment Information

Study Group

Weight

Dry Ice Weight

Description of Return

SSBC

20

10

Biologic Specimens

Pickup Request

Choose Study

Enter weight

Click "Ship"

Reset

Ship



# Shipping Samples via UPS

IU UPS ShipExec Shipping Portal

- Print out UPS air waybill
- Ensure all elements (barcode, return address, etc.) printed clearly
- Fold and insert UPS air waybill into clear plastic sleeve on package

JOHN SMITH INDIANA UNIVERSITY 410 WEST 10TH STREET INDIANAPOLIS IN 46202	2 LBS	1 OF 1
RS		
SHIP TO: SCHOOL OF MEDICINE 317-278-2694 INDIANA UNIVERSITY TK 217 351 W 10TH ST INDIANAPOLIS IN 46202		
	IN 461 9-01	
		
UPS NEXT DAY AIR		1
TRACKING #: 1Z 976 R8W 84 3985 8595		
 SAMPLE		
BILLING: P/P DESC: Biological Specimens RETURN SERVICE		
Reference No.1: 4087277		
XOL 20.03.09 NV45 83.0A 12/2019		 TM

# Non-Conformance Reporting

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Most common non-conformance issues:

- Samples shipped for weekend/holiday delivery
- Sample form incomplete/inaccurate
- Unlabeled or mislabeled tube(s)



# Contacts

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## Indiana University

General Questions/Shipment Notifications:

[biosend@iu.edu](mailto:biosend@iu.edu)

317-278-6158

Request kits:

<http://kits.iu.edu/biosend/UDALL>