

Welcome from Your Project Team!

Dear Investigator,

LabCorp Clinical Trials has been selected by University of California San Francisco to perform the DNA Extraction for Protocol POINT NCT00991029.

As such, we have the pleasure to provide you and your team with all the necessary information and instructions in order to make our collaboration as successful as possible.

Below are the names and toll-free phone numbers of the LabCorp Team Members designated for this study.

We encourage you to contact us as frequently as necessary to answer any questions and address any concerns. We are here to provide all needed study assistance and support.

Your Site Support Team will be your first avenue of communication on most study-related items.

The LabCorp Clinical Trials Department operates between 8H00 and 18H00 (CET), Monday through Friday.

Outside office hours and on holidays and weekends, an answering service is connected to the same telephone numbers. Your call will be returned on the next normal working day.

All individuals associated with the clinical portion of this study should carefully review all applicable instructions and procedure descriptions prior to submitting or collecting samples. If there are any questions or concerns, please contact any member of the team noted below.

We wish you great success with your study and look forward to the receipt of your samples.

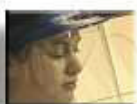
Sincerely,

Tina Cuylen
Project Manager

Site Support Team	Site Support EU	Tel. :	+32-15-342-164
		Fax :	+32-15-342-136
		E-mail :	MonitoringEurope@labcorp.com
Project Manager	Tina Cuylen	Tel. :	+32-15-342-214
		E-mail :	cuylent@labcorp.com
Associate Project Managers		Tel. :	+32-15-342-190/208/212
		E-mail:	APMBelgium@labcorp.com
Other Numbers	LabCorp General Telephone :		+32-15-342-111
	LabCorp General Fax :		+32-15-342-147

Toll-Free Numbers:	Australia	1800808020
	Austria	0800 293184
	Belgium	0800 93 828
	Bulgaria	800 861 4502
	Croatia	800 8614509
	Czech Republic	800 900 388 or 800142640
	Denmark	80 24 08 53
	Estonia	800 044113
	Finland	0800 98773
	France	0800 053 254
	Germany	0800 2000 127
	Greece	00800 44149368
	Hungary	06800 14094
	Ireland	1800 925012
	Israel	180 9242029
	Italy	800 253133
	Latvia	8000 0439
	Lithuania	800 861 4502
	Luxembourg	80029454
	The Netherlands	0800-0231785
	New Zealand	0508 500123
	Norway	800 30 135
	Poland	00800 4411336
	Portugal	800 20 43 50
	Romania	800894427
	Russia	7 495 5809450
	Slovenia	0800 80030
	Slovakia	0800 004613 or 0800 004427
	South Africa	0800 99 1159
	Spain	0 900210314
	Sweden	0200 110262
	Switzerland	0800 80 1754
	Turkey	00800448820610
	Ukraine	800 861 4502
	United Kingdom	0800 169 4076

NOTE: In case no toll free number is available for your country, please call LabCorp general telephone or contact the Site Support Team.



LABORATORY MANUAL – EU sites ONLY

University of California San Francisco

POINT NCT00991029



Sponsor:

University of California San Francisco
675 Nelson Rising Lane, Room 402A
San Francisco, CA 94158

Central Laboratory Facilities:

LabCorp
Clinical Trials
Intercity
Business Park
Generaal De
Wittelaan L11
A2
2800
Mechelen,
Belgium

LabCorp
Clinical Trials
Center for
Esoteric
Testing
1447 York
Court
Burlington, NC
27215
USA

LabCorp
Clinical Trials
LabCorp
CMBP
1904
Alexander
Drive
RTP, NC 27709
USA

LabCorp
Biorepository
724 Chipola
Street
Kannapolis,
NC 28083
USA



TABLE OF CONTENTS

Summation of Changes

Action Plan

General Introduction

Courier Information

The Correct Sampling Kit

The Laboratory Requisition Form

Specimen Collection and Preparation

Specimen Packaging for Transport

Result Report

University of California San Francisco – POINT NCT00991029 Study Specific Instructions and Procedures

Chapter 1: Courier Information

Chapter 2: Schedule of Assessments

Chapter 3: Test Requisition Example(s)

Chapter 4: Specimen Collection and Preparation

Chapter 5: Specimen Packaging for Transport

Chapter 6: Reporting and Turn Around Time

Additional Documents

Appendix 1: Public Holidays

Appendix 2: Reference Ranges

Appendix 3: Laboratory Accreditation

Appendix 4: CV Medical Director

Appendix 5: Forms

SUMMATION OF CHANGES

Description of Change	Section	Date Added	Version
Initial Release	N/A	12 Dec 2013	1.0
Updated EU APM phone numbers	Welcome	12-Apr-2016	2.0
Updated versioning and date	Footer	12-Apr-2016	2.0
Updated requisitions to reflect a 5-digit number.	Chapter 3	12-Apr-2016	2.0
Removed 2013-2015 Holiday Scheduled	Appendix 1	12-Apr-2016	N/A
Updated all Certifications for Mechelen, RTP1904 and Burlington	Appendix 3	12-Apr-2016	N/A
Updated all CVs for Mechelen, RTP1904 and Burlington	Appendix 4	12-Apr-2016	N/A

ACTION PLAN



Courier Information



Select the Correct Sampling Kit



Complete the Laboratory Requisition Form



Collect and Prepare the Specimens



Package for Transport



Result Report

For the transportation of samples from your site to the lab, one or more couriers may have been selected. If you receive additional or supplemental information with courier instructions, please review the material and then file in Chapter 1.

Organize pickup with the selected courier company

- **Latest Booking Time:** This time is provided by the courier company and is the latest possible time to arrange a pickup of samples for that day. To ensure the timely pickup and delivery of your samples to the central laboratory, it is imperative to alert the courier company before this "Latest Booking Time". **However, we advise all sites to pre-alert the courier company the day before sample collection.**
- **Booking Number:** Once you have scheduled your pickup, you should be given a booking or pickup number. Please document this number as confirmation of your request.
- **Latest Pickup Time:** This is the latest possible time during a day for the courier to collect the samples from your site and meet the specified delivery time to the central laboratory. This time is based on the routine service provided.
- **Problems with Pickup:** If you experience any problem with the pickup of your samples (e.g. Courier is not showing up), **please contact LabCorp immediately.** Be prepared to provide the booking number and the airway bill number so we can work with the courier company to resolve the problem. Do not wait until the next day to inform LabCorp of the issue, as this can delay the processing of your samples and possibly compromise the integrity of the specimens.

Dry Ice

- If dry ice is needed for the transport of samples, ordering details can be found in Chapter 1.

Holidays

- Please check your local holidays before shipping samples, as customs and courier services may not be operational prior to, during or following an observed holiday in your country.
- Before scheduling a shipment, also check the public holidays of the country to which the samples are being shipped.
- The LabCorp facilities are closed on Sundays, and on certain holidays (See Appendix 1).
- It is advisable to avoid shipments immediately prior to any of the dates listed in Appendix 1. To ensure a timely delivery, please schedule your shipment no later than 3 days before any holiday.

**FOR SPECIFIC COURIER INFORMATION REGARDING YOUR STUDY,
PLEASE REFER TO CHAPTER 1.**

- You were provided with sampling kits and some bulk supplies.
- Each kit contains the required materials to collect, prepare, and return the samples to LabCorp Clinical Trials.
- The requisition form and barcode labeled items, included inside each kit box, are pre-printed and contain the **same** barcode number. **Do not transfer the contents between kits.**
- All label information must be completed prior to shipping the samples.

PLEASE MAKE SURE YOU HAVE SELECTED THE CORRECT SAMPLING KIT:

- **Check STUDY PROTOCOL**
- **Check KIT TYPE**
- **Check EXPIRATION DATE**

If the incorrect sampling kit is selected for the visit, samples may be missing or drawn unnecessarily. Also, the results will be recorded and reported under the wrong visit. Verification of those samples in question may delay the reporting of results.

In case your kits are about to expire

Order new kits using the reorder form provided in Appendix 5.
Expired kits can be destroyed as per local regulations.

In case you have an unsuccessful collection

Should an item be broken or wasted, replace it with an item from the bulk supplies. There are additional bar-coded labels in each collection kit. Affix one of the extra bar-coded labels in a way that can be easily scanned (e.g. lengthwise for a tube). Make sure the 'Lot Expiration' Barcode is not covered. Complete the information required on the label, including the name of the testing required.

Reordering supplies

To reorder supplies, make a copy of the study specific Reorder Form provided in Appendix 5. Complete the Supply Reorder Form and fax or e-mail to the fax number/e-mail address listed on top of the form.

When reordering supplies, please allow a minimum of 5 to 7 business days for the assembly and delivery of your supplies

**FOR EXAMPLES OF STUDY SPECIFIC REQUISITION FORMS,
PLEASE REFER TO CHAPTER 3.**

The Laboratory Requisition Form is included in the sampling kit

- Specimens submitted for DNA Extraction/Plasma storage **must** have an accompanying requisition form.
- The barcode number on the requisition form **must match** the barcode number on the preprinted label.
- The patient and collection information on the requisition form **must match** the patient information on the label.
- The patient information must be written legibly and completely.
- All requested patient and collection information **must** be entered for each visit to ensure proper sample processing within the laboratory.

NOTE: If there are any discrepancies as outlined above and/or any discrepancies involving patient demographics, verification from your facility will be required. This could delay result reports.

Preprinted Protocol and Investigator Name and Site Number

0354270332

LabCorp


CLINICAL TRIALS

LABORATORY TEST REQUEST FORM

SPONSOR NAME

PROTOCOL ID

Regulation Number



Investigator: FIRST NAME LAST NAME

Site: SITE NUMBER

Lab: ACCOUNT

Consent: (signature)

Phone: (with country code)

Instructions:

- Complete all of the studies and test panels.
- Keep bottom copy for your records. Patients at least one copy of instructions with each specimen submission.
- Refer to LabCorp Investigator Manual for detailed specimen collection, processing and shipping instructions.

Testing Required:

Chemistry: PSA

Hematology: Hemoglobin

Uric Acid: Uric Acid

Optional Tests:

(Select all that apply)

Send to: (with country code)

PK: (with country code)

Lab: (with country code)

Visit: (Select one)

1 Visit 1 ☐ Visit 2 ☐

Medication: (Select one)

1 None ☐ 2 None ☐ 3 None ☐

Patient ID: (with country code)

Date of Birth: (with country code)

Gender: (Select one)

1 Male ☐ 2 Female ☐

Collection Date: (with country code)

Collection Time: (with country code)

Collection Site: (with country code)

Collection Method: (with country code)

Expected Container Type	# Containers Expected Back	# Containers Received	Container Received		
			Anta	Pro	Rating
Serum EDTA, whole blood - Anti	1				
Serum EDTA, whole blood - Anti	1				
Serum Transferrin, Plasma - Refig	1				
Serum Crystal Plasma - Pro	1				
Serum Crystal Plasma - Pro	1				
Serum Crystal EDTA - Serum - Pro	1				
Measurement instructions:					
General Comments:					

Unique Barcode Number linking all items of the kit

Additional Instructions

Visit-Specific Test Information

EXAMPLE

INCLUDE ONE COPY OF EACH REQUISITION FORM (PER SUBJECT) IN EACH SHIPMENT
RETAIN ONE COPY OF EACH REQUISITION FORM FOR YOUR RECORDS

**COMPLETE ALL DEMOGRAPHIC INFORMATION AS REQUESTED ON
THE
REQUISITION**

1. Use the International Date Format: (i.e. 15-OCT-2017)

For month format (**MMM**) please use following abbreviations:

JAN (January)	JUL (July)
FEB (February)	AUG (August)
MAR (March)	SEP (September)
APR (April)	OCT (October)
MAY (May)	NOV (November)
JUN (June)	DEC (December)

2. Use the 24 Hour Time Format: (i.e. 14:30)

3. IF APPLICABLE:

- Be sure to mark the correct Visit.

4. Please do not insert any information into the "For LabCorp Use Only" section.

NOTE: Please do not order any testing other than what is indicated on the requisition. LabCorp Clinical Trials cannot perform non-protocol testing without the written authorization from the sponsor.

- All samples must arrive with a matching requisition enclosed in the specimen bag.
- All samples must be identified with the corresponding Barcode/Subject label.
- Specimen Requirements have been carefully determined. It is critically important that the instructions in this manual and on the test requisition form are followed precisely. Examples of Specimen Requirements may include:
 - Sample Type (e.g. serum, plasma, whole blood, urine, tissue)
 - Tube/Container Type (e.g. Red Top Tube (no preservative), Sodium Heparin, Formalin)
 - Temperature (e.g. Ambient, Refrigerated, Frozen)
 - Amount of sample (e.g. minimum required, full draw - no short samples)

NOTE: Shipments are subject to local, national, and international laws and regulations. Individuals preparing shipments are responsible for ensuring all applicable requirements, laws and certifications are met. The shipment boxes, provided to you by LabCorp or the courier, are compliant with IATA guidelines.

The technical information presented in this manual does not qualify as regulatory training or certification. Any questions regarding certification in the preparation, handling or shipment of dangerous goods should be directed to the appropriate authorities or regulatory agencies.

For a list of the International Air Transport Association (IATA) approved training schools, please contact your local office (details can be found at www.iata.org/about/offices) or the IATA main facility in Montreal, Canada (+ 1 514 874 0202).

- All study related data will be forwarded as per specifications from the sponsor.
- Any missing demographic information or discrepancies could delay the transfer of data.

**FOR STUDY-SPECIFIC RESULT REPORTING,
PLEASE REFER TO CHAPTER 6.**



University of California San Francisco

POINT NCT00991029



Study-specific Instructions

EU sites ONLY



COURIER INFORMATION

Courier selected for the transport of samples:

(Label with site specific courier information will be provided in this box)

Web-site address: You can track your shipment on the following web site:
www.tnt.com / www.dhl.com by entering your airway-bill number.

**REMINDER: Specimens can only be shipped
to LabCorp Clinical Trials
MONDAY THROUGH THURSDAY**

CHAPTER 1

Order Dry Ice

Dry Ice can be ordered for your shipments to LabCorp. This can be done by faxing the Dry Ice Order Form, provided at the back of this manual (see section 'Forms'). Please fill out the required fields if not pre-printed, and fax to the number mentioned on the form.

Dry Ice has to be delivered 1 DAY PRIOR to the shipment of the samples.
Only order Dry Ice for delivery on Tuesday and Wednesday.

NOTE: Shipping boxes for frozen shipments will be delivered by the courier when bringing the dry ice. These shipping boxes contain the dry ice, required for your frozen sample shipments.

DHL		LabCorp CLINICAL TRIALS	
REQUEST FOR DRY ICE SHIPPING BOX DELIVERY DELIVERED BY 10:00 A.M. 1 DAY PRIOR TO REQUESTED DELIVERY DATE			
Please fax this form to +32 (0) 2 754 49 47 or e-mail to brulscv@labcorp.com For contact details of the Customer service team contact your manager			
Reference for billing (Account ID/ID#)		Protocol number	
Site number (if Patient Account Number)		Investigator name	
MARK YOUR REQUIREMENT ON AMOUNT OF SAMPLES TO RETURN: <input type="checkbox"/> YES (I want to return dry ice) <input type="checkbox"/> NO (I don't want to return dry ice) If you ship more than 24 samples, please make a combination of both dry types based on the total number of samples to ship.		PRE12 REQUIRED? <input type="checkbox"/> YES (Sponsor approval required)	
REQUESTED DELIVERY DATE: your site has a 24 hrs service			
ONLY USE FOR A SINGLE DELIVERY DATE - IF MULTIPLE DELIVERIES USE SEPARATE FORMS PER DELIVERY DATE			
ONLY FOR DELIVERY POSSIBLE ON: Monday <input type="checkbox"/> Tuesday <input type="checkbox"/> Wednesday <input type="checkbox"/> Thursday <input type="checkbox"/> Friday <input type="checkbox"/> Saturday <input type="checkbox"/> Sunday <input type="checkbox"/>	REQUESTED DELIVERY DATE: DD / MM / YY	FOR OFFICIALS USE: RECEIPT TYPE: B 1 / 10.1 (only for official use when an invoice is sent from LabCorp and/or to Patient) (not for official use in hospitals)	
Hospital name Department name Attention of City Country Phone Fax Email Date Ordered by			
IF YOU SHIP SAMPLES ON FRIDAY DO NOT FORGET YOUR SATURDAY DELIVERY STICKER To be completed by DHL (for internal use): Dispatch AWR Return AWR Delivery Station			
Dry Ice Box 24 hrs 2009 - edition 8.1 / position 13.1 CT-BD-45-PCD-15 Revision 1			

TNT		LabCorp CLINICAL TRIALS	
TNT Express - Dry Ice order form MEDPAK - 24 hrs site			
Please FAX this form to +32 (0) 2 754 49 47 or e-mail to brulscv@labcorp.com as soon as possible by 10:00 A.M. 1 DAY PRIOR TO REQUESTED DELIVERY DATE			
If you have any problems receiving the dry ice please contact your Customer Service team IMMEDIATELY (contact details see manual)			
Please complete all the information below for delivery of Medpak & Dry Ice by TNT			
Name of Central Laboratory		Customer Clinical Trials Services	
Protocol Number + (GCP / ENH Code)		TNT account BR 63629	
Site Number			
Name Main Investigator		Hospital/Clinic	
Department/Wing			
Street Name and nr (do not use PO Box Numbers)			
Postal code + City			
Country			
Name Contact Person for the shipment			
Contact Telephone Number			
Fax Number (fill out for TNT confirmation)			
Ordered By			
Comments			
Dry Ice and packaging required at site are: + _____ Day: _____		Clearly fill in the number of boxes needed: <input type="checkbox"/> 1 - 12 samples = 1 box MedPak 5 <input type="checkbox"/> 12 - 24 samples = 1 box MedPak 10	
PRE12 REQUIRED? <input type="checkbox"/> YES (Sponsor approval required)		IF YOU SHIP SAMPLES ON FRIDAY DO NOT FORGET YOUR SATURDAY DELIVERY STICKER	
Following boxes for TNT office use only			
Order received by			
Time received (Fax time)			
Dry Ice Box 24 hrs 2009		CT-BD-45-PCD-15 Revision 1	

CHAPTER 1

Airway Bill

Pre-printed airway bills have been provided to your site.

Sign and date the airway bill and add to the package for transport.

After the driver has completed the appropriate sections, keep one copy for your files.

Example DHL airway bill (3 sided NCR paper)

The image shows a DHL airway bill form. A large diagonal watermark "EXAMPLE" is overlaid. A red circle highlights the "Sign & date" section at the bottom right, which includes fields for "Signature" and "Date".

Sign & date

1st copy → put in **plastic pouch**
2nd copy → for the courier
3rd copy → for the site

Example TNT airway bill

The image shows a TNT airway bill form. A large diagonal watermark "EXAMPLE" is overlaid. Red circles highlight the "Date" field at the top left and the "Sign & date" section at the bottom right, which includes fields for "Signature" and "Date".

This part is for the package → put in **plastic pouch**



Part for the courier

Sign & date

Part for the site file

Note: If you experience problems with the pickup of your samples, contact your LabCorp Site Support Team immediately. Please be prepared to provide the booking and air waybill numbers.

SCHEDULE OF ASSESSMENTS

Visit Name/Visit Number					Baseline DNA + Plasma
Visit Interval					
Visit Type					S
Test Panel/Name	Specimen Type	Collection Tube	Sample Tube/ Cryovial (Coming back)	Samples permitted to be batched	
Plasma-storage	Plasma	10 ml EDTA	6 x 2ml Cryovial	Yes**	F
DNA Extraction-Buffy coat			10 ml Cryovial*		F

* Following centrifugation at the site, plasma is transferred to 6 x 2ml Cryovials and frozen on site. The remaining RBCs and buffy coat is transferred from the 10 mL EDTA tube to a 10 mL Cryovial and is also frozen and shipped along with 2 mL Cryovials.

** Samples can be batched at the site and shipped every 3 months only if the samples are stored in a -70° C freezer or colder. Sites without -70° C freezers must keep their samples at -20°C, -30°C or -40°C and ship within 4 days of collection to LabCorp Mechelen, Belgium.


Note: Samples MUST be frozen for 24 hrs prior to shipment!

Notes:

S: Scheduled/ **F:** Frozen

******Samples can be batched at the site and shipped every 3 months only if the samples are stored in a -70°C freezer or colder.**

TEST REQUISITION EXAMPLE

LabCorp CLINICAL TRIALS		Requisition Number
LABORATORY TEST REQUEST FORM		 S r r e q u e s t n u m b e r N
Investigator:		
Site:		
LSN:		
Contact who completed requisition form:		
Phone #:		
(with country code-international sites only)		
Instructions:		
- Complete all information with ball-point pen. - Keep bottom copy for your records. Submit at least one copy of requisition with each specimen shipment. - Refer to LabCorp Investigator Manual for detailed specimen collection, processing and shipping instructions.		
ENSURE PATIENT CONSENT FORM IS SIGNED BEFORE SAMPLES ARE COLLECTED.		
IMPORTANT: When aliquoting plasma from EDTA tube, do NOT pipette buffy coat and ensure it remains in the EDTA tube. After plasma is transferred equally into 6 x 2mL cryovials, transfer the packed RBCs & buffy coat from the EDTA tube into the 4mL cryovial. Complete information on all tube labels & freeze all cryovials. Empty EDTA tube can be discarded.		
Testing Required: DNA Extraction		
For LabCorp Use Only		
Expected Container Type	# Containers Expected Back	# Containers Received
10 mL Cryovial, Buffy Coat - Frz	1	
2 mL Cryovial, Plasma - Frz	6	
Accessioner's Initials/Date:		
General Comments:		
Visit: Baseline DNA + Plasma Subject ID: Randomization #: Collection Date: Collection Time: Was a refrigerated centrifuge used? At what freezer temperature were samples stored? Site Comment: (Not entered into LabCorp database)		
Condition Received Amb Frz Refrig		

SAMPLE

SPECIMEN COLLECTION AND PREPARATION

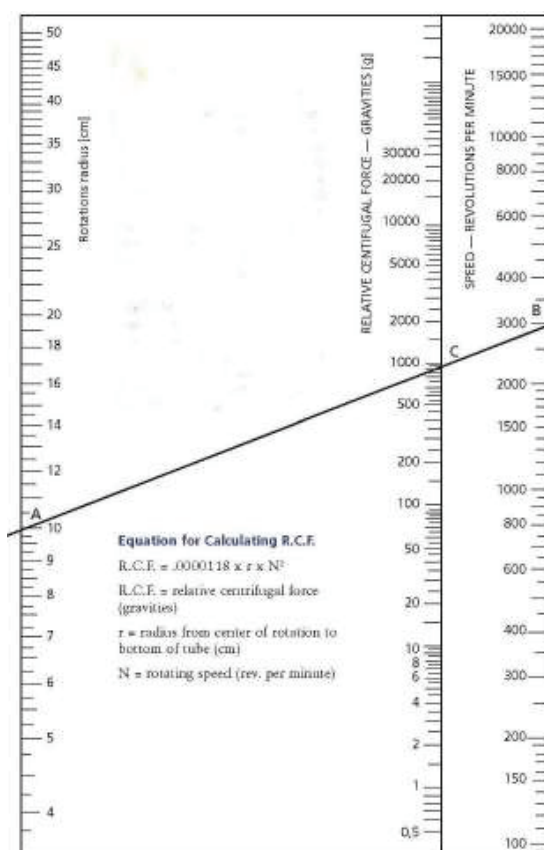
General Reminders

- Throughout specimen collection and handling, proper universal precautions should be practiced. Precautions such as collection gloves, protective eye wear, and lab coats should be worn throughout the collection and specimen handling procedure. Particular caution should be observed during venipuncture.
- **Confirm that Informed Consent for the biomarkers study was obtained.**

SPECIMEN COLLECTION AND PREPARATION

Centrifugation

Guidelines for the Conversion of Relative Centrifugal Force (g) to RPM (Rotations per Minute)






Note: If you need further assistance, please call your LabCorp Site Support Team.

Radius (cm)	G-force	RPM
10	1200	3280
12	1200	2990
14	1200	2770
16	1200	2590
18	1200	2440
20	1200	2310
22	1200	2200
24	1200	2110
26	1200	2030
28	1200	1950
30	1200	1890

Radius (cm)	G-force	RPM
10	1500	3660
12	1500	3340
14	1500	3090
16	1500	2890
18	1500	2730
20	1500	2590
22	1500	2470
24	1500	2360
26	1500	2270
28	1500	2190
30	1500	2110

SPECIMEN COLLECTION AND PREPARATION

TEST	VISIT	COLLECTION TUBES	INSTRUCTIONS / STABILITY	TUBES TO BE SENT BACK	SHIPPING TEMP.	SHIPPING Frequency/Courier/ Location
Plasma Storage	Baseline DNA + Plasma	 10 mL EDTA tube	<ul style="list-style-type: none"> -Completely fill the lavender top EDTA tube. -Gently invert the tube at least 6-8 times immediately after collection to avoid clotting. -Complete the label with the Subj ID (Subject ID) and Random# (Randomization #). -Fill out the Laboratory Request Form. -Separate the plasma from the cells by centrifuging at 1000 x g for 15 minutes. -Refrigerated centrifuge is preferred. Centrifuge within 30 minutes to 1 hour of collection. -Using a pipette included in the sampling kit, transfer 0.7 mL of plasma from the lavender top EDTA tube into each of the six Cryovial aliquot tubes. -Be careful not to disturb the buffy coat layer between the blood cells and the plasma. (NOTE: Buffy coat is critical for DNA extraction and if no buffy coat present, no DNA or minimal DNA is extracted). * -Secure caps on the plasma Cryovial aliquot tubes. -Complete labels for the aliquot tubes with the Subj ID (Subject ID) and Random# (Randomization Number). -Using a new pipette, transfer the remaining RBCs and buffy coat from the lavender top EDTA tube into the 10 mL Cryovial. 	 6 x 2 mL Cryovials	FROZEN	<p>Ship the specimens on dry ice within 4 days of collection if the leftover cells and plasma are frozen in a -20°C, -30°C or -40°C freezer. Samples <u>MUST</u> be frozen for 24 hrs prior to shipment!</p> <p>Specimens can be stored in a -70°C freezer for up to three months before shipping on dry ice.</p> <p>Monday through Thursday ONLY</p> <p>Via DHL/TNT</p> <p>To LabCorp Mechelen, Belgium</p>
DNA Extraction- Buffy coat				 10 mL Cryovial (contains RBCs & Buffy Coat)		

*** If you accidentally draw up some of the buffy coat layer into one of the pipettes, please make a note on the Laboratory Requisition Form. This may affect the accuracy of biomarker levels.**

SPECIMEN PACKAGING FOR TRANSPORT

Study-specific ATTENTION POINTS:

- All samples must be identified with the corresponding Barcode/Subject Label.
- All tubes and containers must be tightly closed to avoid leakage during transport.
- Samples of multiple subjects may be shipped in one container and should remain in their individual specimen bags, along with corresponding requisition forms.
- Check local and national holidays (See Appendix 1).
- **In the event samples cannot be shipped on the Day of Collection (or outside cut-off times):**
 - For sites WITHOUT a -70° C freezer, store all samples at -20° C, -30° C or -40° C and ship within 4 days of collection. **Note:** Samples MUST be frozen for 24 hrs prior to shipment!
 - For sites with -70° C freezer can keep samples on site for up to 3 months before shipment to LabCorp on dry ice.
- **You must fill out all transport documents completely**
 - Transport document(s) are provided and are preprinted with site and LabCorp information. (See Chapter 1 – Courier Services)
 - Sign and Date where indicated
 - Retain a copy for your documents

SPECIMEN PACKAGING

Non-Infectious **FROZEN** Shipment- **Monday through Thursday ONLY**

*Ship the samples on dry ice within 4 days of blood draw if the leftover cells and plasma are frozen in a -20° C, -30° C or -40° C freezer. **Note:** Samples **MUST** be frozen for 24 hrs prior to shipment!*

Samples can be stored in a -70° C freezer for up to three months before shipping on dry ice.

SHIPPING BOX



Frozen samples:

1. Insert samples into absorbent wrap.
2. Place wrapped samples inside the largest compartment of specimen bag and seal. **(Never place dry ice in the specimen bag!)**
3. Insert a copy of the completed requisition form in the outer pocket of the specimen bag. (Retain one copy for your records.)
4. Add one layer of dry ice to bottom of styrofoam section of the frozen shipper.
5. Place specimen bag containing samples on top of dry ice.
6. Cover specimen bag with dry ice until box is $\frac{3}{4}$ full to completely full. (Do not overfill, as pressing down on box top may crack cryovials.)
7. Replace styrofoam cover and seal shipper box
8. Complete the DHL/TNT air waybill. (Retain one copy for your records.)
9. Insert the DHL/TNT air waybill into airbill pouch, affix pouch to the outside of the frozen shipper box, and submit to driver.

NOTE: Samples of multiple subjects may be shipped in one container but should be packed in individual specimen bags, along with corresponding requisition forms.

REPORTING AND TURNAROUND TIME

LabCorp will not perform any testing. Extracted DNA samples and frozen plasma aliquots will be shipped to Mayo Clinic for analysis.

When contacting LabCorp, ALWAYS have the Requisition Number available, since this is the LabCorp primary identifier.

Belgian Public Holidays

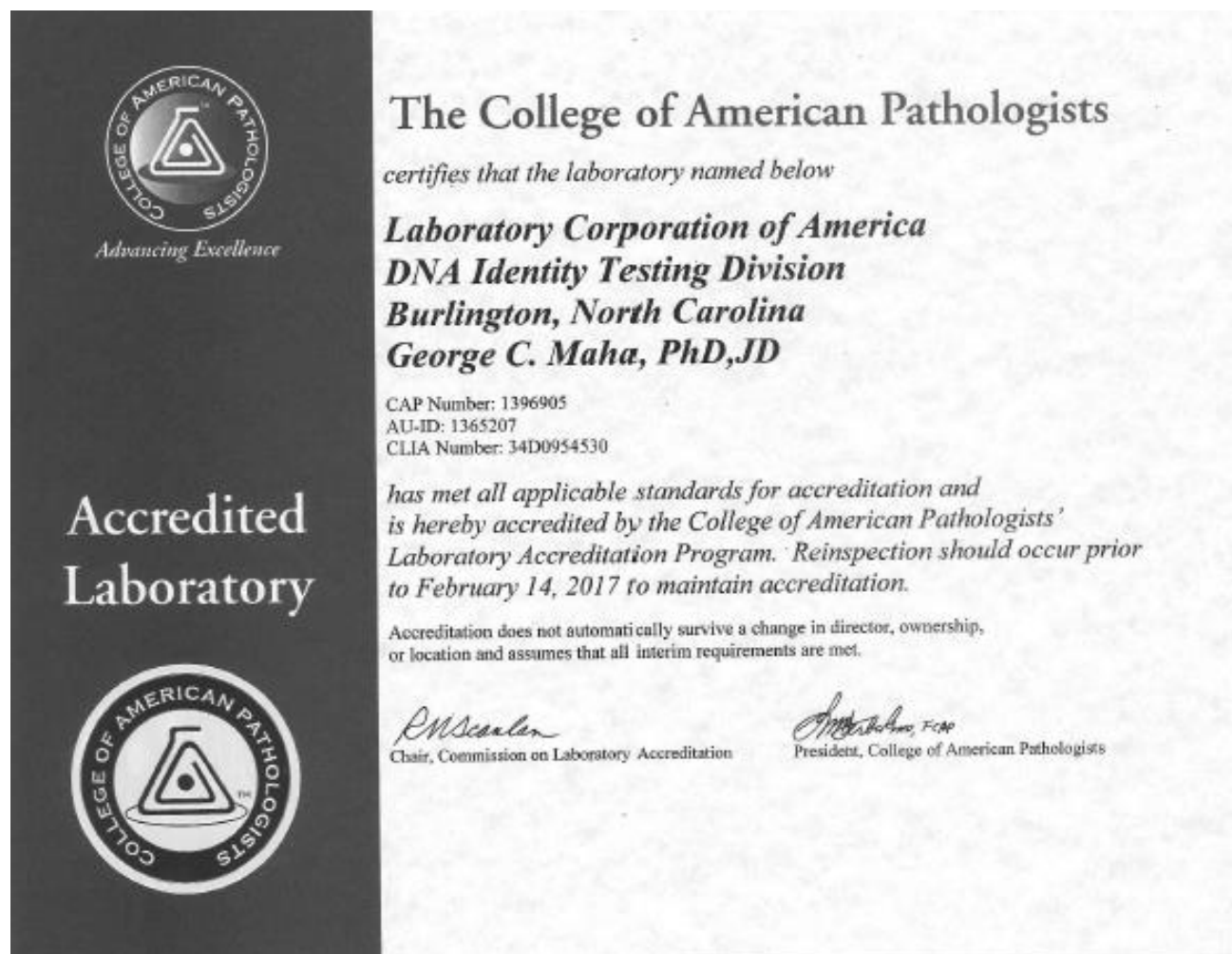
	2016	2017	2018
New Year's Day*	Friday, January 1	Sunday, January 1	Monday, January 1
Easter Monday	Monday, March 28	Monday, April 17	Monday, April 02
Labor Day	Sunday, May 1	Monday, May 1	Tuesday, May 1
Ascension Day	Thursday, May 5	Thursday, May 25	Thursday, May 10
Whit Monday	Monday, May 16	Monday, June 05	Monday, May 21
National Holiday	Thursday, July 21	Friday, July 21	Saturday, July 21
Assumption Day	Monday, August 15	Tuesday, August 15	Wednesday, August 15
All Saints' Day	Tuesday, November 1	Wednesday, November 1	Thursday, November 1
Armistice Day	Friday, November 11	Saturday, November 11	Sunday, November 11
Christmas Day *	Sunday, December 25	Monday, December 25	Tuesday, December 25


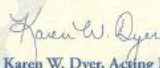
* LabCorp facilities closed

Reference Ranges

Not Applicable

Laboratory Accreditation – Burlington DNA testing Division



CENTERS FOR MEDICARE & MEDICAID SERVICES CLINICAL LABORATORY IMPROVEMENT AMENDMENTS CERTIFICATE OF ACCREDITATION	
LABORATORY NAME AND ADDRESS	CLIA ID NUMBER
LABORATORY CORPORATION OF AMERICA HOLD 1440 YORK COURT BURLINGTON, NC 27215	34D0954530
LABORATORY DIRECTOR	EFFECTIVE DATE
GEORGE C MAHA PHD, JD, MT (A)	04/28/2015
	EXPIRATION DATE
	04/27/2017
<p>Pursuant to Section 353 of the Public Health Services Act (42 U.S.C. 263a) as revised by the Clinical Laboratory Improvement Amendments (CLIA), the above named laboratory located at the address shown hereon (and other approved locations) may accept human specimens for the purposes of performing laboratory examinations or procedures.</p> <p>This certificate shall be valid until the expiration date above, but is subject to revocation, suspension, limitation, or other sanctions for violation of the Act or the regulations promulgated thereunder.</p>	
 CENTERS FOR MEDICARE & MEDICAID SERVICES	 Karen W. Dyer, Acting Director Division of Laboratory Services Survey and Certification Group Center for Clinical Standards and Quality

LABORATORY ACCREDITATION- Mechelen

A valid Laboratory Accreditation is provided with the initial supply.

For online accreditation information, access:

<http://www.covance.com/customers/investigators/investigator-tools-and-resources/accreditations-and-certifications.html>

Laboratory Accreditation - Mechelen

For more information about the accreditation and a current list of accredited tests please refer to the following website:
www.belac.be.



Organisme belge d'Accréditation
Belgische Accreditatieinstelling
Belgische Akkreditierungsstelle
Belgian Accreditation Body

Signatory to EA, ILAC and IAF
Multilateral Agreements

Accreditation Certificate No. 299-TEST

In compliance with the provisions of the Royal Decree of 31 January 2006 setting up BELAC, the Accreditation Board hereby declares, that the test laboratory

**LABCORP CLINICAL TRIALS
INTERCITY BUSINESS PARK
Generaal De Wittelaan, L11 A2
2800 MECHELEN - Belgium**

has the competence to perform the tests as described in the annex which is an integral part of the present certificate, in accordance with the requirements of the standard NBN EN ISO/IEC 17025:2005. The present accreditation is the subject of regular surveillance in order to confirm the compliance with the accreditation conditions.

The Chair of the Accreditation Board BELAC,

Nicole MEURÉE-VANLAETHEM

Issue date : 2015-01-15

Validity date : 2019-06-11

Original version of this certificate is in Dutch.

.be



Laboratory Accreditation – RTP 1904

 <p>COLLEGE of AMERICAN PATHOLOGISTS</p>  <p>CAP ACCREDITED <small>COLLEGE of AMERICAN PATHOLOGISTS</small></p>	<p>The College of American Pathologists certifies that the laboratory named below</p> <p>Laboratory Corporation of America Center for Molecular Biology & Pathology Research Triangle Park, North Carolina Arundhati Chatterjee, MD</p> <p>CAP Number: 7182269 AU-ID: 1396239 CLIA Number: 34D1008914</p> <p>has met all applicable standards for accreditation and is hereby accredited by the College of American Pathologists' Laboratory Accreditation Program. Reinspection should occur prior to May 24, 2018 to maintain accreditation.</p> <p>Accreditation does not automatically survive a change in director, ownership, or location and assumes that all interim requirements are met.</p> <table border="0"><tr><td data-bbox="618 959 936 1023"> Chair, Commission on Laboratory Accreditation</td><td data-bbox="1003 959 1301 1023"> President, College of American Pathologists</td></tr></table>	 Chair, Commission on Laboratory Accreditation	 President, College of American Pathologists
 Chair, Commission on Laboratory Accreditation	 President, College of American Pathologists		

**CENTERS FOR MEDICARE & MEDICAID SERVICES
CLINICAL LABORATORY IMPROVEMENT AMENDMENTS**

CERTIFICATE OF ACCREDITATION

LABORATORY NAME AND ADDRESS
LABCORP OF AMERICA HOLDINGS
CYTOGENETICS & CYTOLOGY & FLOW CYTOMET
1904 ALEXANDER DRIVE STE C
RESEARCH TRIANGLE PARK, NC 27709

CLIA ID NUMBER
34D1008914

EFFECTIVE DATE

08/11/2015

EXPIRATION DATE

08/10/2017

LABORATORY DIRECTOR

ARUNDHATI CHATTERJEE MD

Pursuant to Section 353 of the Public Health Services Act (42 U.S.C. 263a) as revised by the Clinical Laboratory Improvement Amendments (CLIA), the above named laboratory located at the address shown hereon (and other approved locations) may accept human specimens for the purposes of performing laboratory examinations or procedures.

This certificate shall be valid until the expiration date above, but is subject to revocation, suspension, limitation, or other sanctions for violation of the Act or the regulations promulgated thereunder.



Karen W. Dyer
Karen W. Dyer, Acting Director
Division of Laboratory Services
Survey and Certification Group
Center for Clinical Standards and Quality

92 Certs2_071415

If you currently hold a Certificate of Compliance or Certificate of Accreditation, below is a list of the laboratory specialties/subspecialties you are certified to perform and their effective date:


<u>LAB CERTIFICATION (CODE)</u>	<u>EFFECTIVE DATE</u>	<u>LAB CERTIFICATION (CODE)</u>	<u>EFFECTIVE DATE</u>
GENERAL IMMUNOLOGY (220)	04/09/2007		
ROUTINE CHEMISTRY (310)	09/14/2009		
HEMATOLOGY (400)	06/18/2010		
CYTOGENETICS (900)	08/11/2003		

FOR MORE INFORMATION ABOUT CLIA, VISIT OUR WEBSITE AT WWW.CMS.GOV/CLIA
OR CONTACT YOUR LOCAL STATE AGENCY. PLEASE SEE THE REVERSE FOR
YOUR STATE AGENCY'S ADDRESS AND PHONE NUMBER.

PLEASE CONTACT YOUR STATE AGENCY FOR ANY CHANGES TO YOUR CURRENT CERTIFICATE.

CV Medical Director - Burlington

GEORGE C. MAHA, JD, Ph.D., MT(ASCP)
Ph.D. Medical Geneticist (ABMG)
Associate Vice President
Laboratory Director
 Laboratory Corporation of America™ Holdings
 DNA Identification Testing Division
 1440 York Court
 Burlington, North Carolina 27215-3361
 Telephone 1-336-436-7307
 Fax 336-436-7384
 E-mail: Mahag@LabCorp.com
 (November 2014)


 May 7, 2015

Education

SCHOOL	DATES	DEGREE/PROGRAM
Upper Dublin Senior High School Fort Washington, PA	1969-1972	Diploma
St. Louis University St. Louis, Missouri	1972-1976	BA (Biology)
Department of Biology St. Louis University St. Louis, Missouri	1976-1979	MS
Biological Station University of Montana Flat Head Lake, Montana	1977	Summer Session
Department of Genetics and Development University of Illinois Urbana, Illinois	1978-1982	Ph.D.
University of Maryland College Park	1982	Continuing Education (Microbiology)
Malcolm Grow USAF Medical Center Department of Pathology Andrews AFB, Maryland	1982-1983	Biomedical Laboratory Internship
North Carolina Central University School of Law Durham, North Carolina	1991 – 1995	JD
Michigan State University East Lansing, Michigan	2006	Continuing Education (Molecular Biology)

Certifications

Admitted to the North Carolina Bar (1995)

Ph.D. Medical Geneticist (1987) - American Board of Medical Genetics

Laboratory Director (1987) - New York State Department of Health

Medical Technologists (1983) - American Society of Clinical Pathologist

Organizations

American Society of Clinical Pathology (ASCP)

American Association of Blood Banks (AABB)

Member Parentage Testing Program Unit 1999-2003

Chair, Relationship Testing Standards Program Unit 2004 – 2008

Consultant, Relationship Testing Standards Program Unit 2009 – Present

College of American Pathologists

Consultant, Histocompatibility/Identity Testing Committee 2009 – 2011

Member, Histocompatibility/Identity Testing Committee 2012 - Present

American Bar Association (ABA) - Vice Chair, Paternity Committee 1996 - 1997

National Conference of Commissioners on Uniform State Laws

Observer to revision of the Uniform Parentage Act - 1997 - 2000

Positions Held

Laboratory Director, May 2000 – Present

Technical Leader, November 2004 - Present

Associate Vice President, May 2008 - Present

DNA Identification Testing Division

Laboratory Corporation of America Holdings

1440 York Court, Burlington, NC 27215-2230

Director of Laboratory Operations, January 1993 - 2000

HLA & Department of Parentage Evaluation

Laboratory Corporation of America Holdings (Formerly Roche Biomedical Laboratories, Inc.)

1440 York Court, Burlington, NC 27215-2230

Associate Director, June 1987 - December 1992

HLA & Department of Parentage Evaluation

Roche Biomedical Laboratories, Inc., 1447 York Court, Burlington, NC 27215-2230

Chief, Medical Genetics Laboratory, October 1984 - June 1987

USAF Medical Genetics Center, Keesler AFB, MS

Chief, Clinical Laboratory Services, September 1983 - September 1984

USAF Regional Hospital, Incirlik, Turkey

Teaching Experience

School	Dates	Course Taught
St. Louis University (Teaching Assistant)	1975-1978	General Biology Comparative Anatomy
St. Louis University (Lecturer)	1976-1977	General Biology
University of Illinois (Teaching Assistant)	1978-1982	Experimental Genetics General Genetics Evolution Genetics and Society Histology
University of Maryland, European Division (Lecturer)	1983-1984	Human Genetics General Biology
Embry-Riddle Aeronautical University (Lecturer)	1985	Flight Physiology
University of Southern Mississippi (Lecturer)	1987	Medical Genetics

Military Service

Captain, United States Air Force,
Biomedical Science Corps
1982-1987
Honorable Discharge: June 30, 1987

Awards and Honors

United States Air Force Humanitarian Service Award
United States Air Force Commendation Medal, First Oak Leaf Cluster

Significant Scientific Continuing Education

Bode Mid-Atlantic: DNA and Investigators Workshop, Crystal City, VA	2014
25 TH International Symposium on Human Identification, Phoenix, AZ	2014
24 TH International Symposium on Human Identification, Atlanta, GA	2013
AABB, 65 th Annual Meeting, Boston, MA	2012
23 rd International Symposium on Human Identification, Nashville, TN	2012
American Academy of Forensic Sciences, Annual Scientific Meeting, Atlanta, GA	2012
22 nd International Symposium on Human Identification, National Harbor, MD	2011
AABB, 64 th Annual Meeting, San Diego, CA	2011
AABB, 63 rd Annual Meeting, Baltimore, MD	2010
15th National CODIS Conference, Reston, VA	2009
AABB, 62nd Annual Meeting, New Orleans, LA	2009

14th National CODIS Conference, Arlington , VA	2008
AABB, 61st Annual Meeting, Montreal, Quebec, Canada	2008
13 th National CODIS Conference, San Francisco, CA	2007
AABB, 60th Annual Meeting, Anaheim, CA	2007
AABB, 59th Annual Meeting, Miami, FL	2006
AABB, 58th Annual Meeting, Seattle, WA	2005
AABB, 57th Annual Meeting, Baltimore, MD	2004
American Association of Blood Banks, 56th Annual Meeting, San Diego, CA	2003
13th International Symposium on Human Identification, Phoenix, AZ	2002
American Association of Blood Banks, 55th Annual Meeting, Orlando, FL	2002
12th International Symposium on Human Identification, Biloxi, MS	2001
American Association of Blood Banks, 54th Annual Meeting, San Antonio, TX	2001
ASHI / SEOPF Regional Workshop, Raleigh, NC	2001
American Association of Blood Banks, 53rd Annual Meeting, Washington, DC	2000
10th International Symposium on Human Identification, Coronado Springs Resort, Orlando, Florida	1999
American Association of Blood Banks, 52nd Annual Meeting, San Francisco, CA	1999
Statistics and Population Genetics for Forensic Science, The Southern Association of Forensic Scientists, 1996 Fall Conference, Raleigh, North Carolina	1996
American Association of Blood Banks, 47th Annual Meeting, San Diego, California	1994
DNA Fingerprinting, NISS (National Institute of Statistical Science) Forum, Chapel Hill, North Carolina	1993
1991 International Symposium on Human Identification., Madison, Wisconsin	1991
41st Annual Meeting, The American Society of Human Genetics, Cincinnati, Ohio	1990
American Association of Blood Banks, DNA for Parentage Testing: Current State of the Art, Leesburg, Virginia	1989
The International Symposium on Human Identification, Data Acquisition and Statistical Analysis for DNA Typing Laboratories, Madison, Wisconsin	1989
DNA Genetic Testing: Forensic Implications For New Mexico, Family Law and Criminal Law Sections of the State Bar of New Mexico and the New Mexico Human Services Department,	1989
39th Annual Meeting, The American Society of Human Genetics, New Orleans, LA	1988
South-Eastern Organ Procurement Foundation, Histocompatibility Specialist Course, Phoenix, Arizona	1988
National Institutes of Health, Medical Genetics Course, The Foundation for Advanced Education in the Sciences, Inc., Bethesda, Maryland	1987

Abstracts and Publications

Erin M. Hall, James R. Fuller, Sarah E. Haugh, and **George C. Maha**. Use of PowerPlex® 18D in the Examination of Genomic Instability in the Short Tandem Repeat DNA Loci used for Human Cell Line Authentication Testing. 25TH International Symposium on Human Identification, Phoenix, AZ. Abstract 49.

Patricia M. Kopko, Arthur B. Eisenbrey, **George C. Maha**. College of American Pathologists HLA-B 27 Proficiency Testing Data Reveals Increased False Positive Rates for Flow Cytometry Methods. Histocompatibility/Identity Committee, College of American Pathologists, Northfield, IL, USA. *Human Immunology* 74 (2013) 149 Abstract 144-P.

Kuppareddi Balamurugan, Martin Tracey, Uwe Heine, **George C. Maha** and George T. Duncan. "Mutation at the human D1S80 minisatellite locus," *The Scientific World Journal*, Volume 2012, Article ID 917235, 7 pages doi:10.1100/2012/917235.

Bryan Butt, Uwe Heine, Mark Ladd, **George C. Maha**. Evaluation of a New Multiplex Containing the D6S1043 Locus. 22nd International Symposium on Human Identification. October 3–6, 2011, National Harbor, Maryland. Presentation.

Maha, G.C. and Fuller, J.R. Allele Frequencies for Penta C in Caucasian, African American, American Indian, Asian and Hispanic Populations. [Internet] 2011. Available from: <http://www.promega.com/resources/articles/profiles-in-dna/2011/allele-frequencies-for-penta-c/>

George C. Maha, Uwe Heine, Mark Ladd, Gary Stuhlmiller, Katie Oostdik, Benjamin Krenke, Douglas Storts. Implementation of a 21-Locus Panel for Human relationship Testing. 21st International Symposium on Human Identification. October 11 – 14, 2010 San Antonio, Texas. Abstract.

George C. Maha, Lloyd C. Osborne, Gary M. Stuhlmiller and Cynthia Taves, Calculating the Paternity Index for Loci with Apparent Mutations in STR Testing. Parentage Minisymposium at the 13th International Symposium on Human Identification October 7–10, 2002. Phoenix, AZ. Abstract.

Gary M. Stuhlmiller, Lloyd C. Osborne, Uwe Heine, Cynthia J. Taves, Karl-Hans Wurzinger and **George C. Maha**. Altered Primer Binding Sites and Non-Symmetrical Amplification in CODIS 13 Loci. Parentage Minisymposium at the 13th International Symposium on Human Identification October 7–10, 2002. Phoenix, AZ. Abstract.

L. M. Randolph, David Wade and **G. C. Maha**. Should You Consider DNA Retrieval At Your Funeral Home?, Funeral Home Technology, January 2001:69.

Maha, G. C. and J. M. Mason. 2000. Genetic Privacy and Paternity Testing. Delaware Lawyer. 18(2):14-33.

Maha, G. C. 1999. Determining Paternity After Death: Genetic Testing When a Party is Not Available. In N. M. Vitek, ed. Disputed Paternity Proceedings. Matthew Bender & Company, Inc., New York, NY.

Maha, G. C. 1997. Analysis of Genetic Test Results for Courtroom Use. In N. M. Vitek, ed. Disputed Paternity Proceedings. Matthew Bender & Company, Inc., New York, NY.

Mason, J. M., **G. C. Maha**, G. M. Stuhlmiller, U. Heine and M. Eisenberg. 1995. Application of DNA Analysis to Human Identification. In R. W. Allen and J. P. AuBuchon, eds., Molecular Genetics in Diagnosis and Research. American Association of Blood Banks, Bethesda, MD.

Maha, G. C., J. M. Mason, G. M. Stuhlmiller, U. Heine. 1995. Pitfalls of Paternity Testing Based Solely on PCR Typing of Minisatellites and Microsatellites - Reply. Am. J. Hum. Genet. 56:1505 - 1506.

Eisenberg, M., R. Guerrieri, **G. C. Maha**, J. M. Mason, U. Heine, L. Osborne, G. Stuhlmiller and B. Burkhart. 1993. PCR-Based Analysis for Identity Testing. In Proceedings from The Fourth International Symposium on Human Identification 1993. Promega Corporation, Madison.

Wurzinger, K., **G. Maha**, G. Stuhlmiller, U. Heine, R. Barwick, C. Harris, L. Osborne, L. Tuckwiller, C. White, and J. Mason. 1991. Apparent DNA Mutations Found in Paternity Cases at Loci D2S44, D17S79 and D14S13. Transfusion 31(Suppl):51S. Abstract.

Eisenberg, M., **G. C. Maha**, J. M. Mason and J. Chimera. 1991. AMPFLP Analysis in Parentage Testing. In Proceedings from the Second International Symposium on Human Identification 1991. New Technologies, Standardization of Methods and Data Sharing for DNA Typing Laboratories. Promega Corporation, Madison.

Britton, L.C., A.T. Bombard, D.T. Rigdon, and **G.C. Maha**. 1989. Amniotic fluid alpha-fetoprotein (AF-AFP) levels and cytogenetic abnormalities: Are they related? American College of Obstetricians and Gynecologists/Armed Force District Meeting, Washington, DC. 5-9 Nov. 1989. **NOTE, this paper won the best paper in Obstetrics by a resident out of 200 papers at this meeting. Abstract.

Highton, R., **G. C. Maha**, & L. R. Maxson. 1989. Biochemical Evolution of the Slimy Salamanders of the *Plethodon glutinosus* Complex in the Eastern United States. Illinois Biological Monograph; 57. Univ. of Illinois Press, Urbana and Chicago

Fox, W.A., J.M. Mason, **G.C. Maha**, & R.S. Foster, 1988. Automation in HLA Phenotyping For Parentage Studies. 14th Annual Meeting American Society for Histocompatibility and Immunogenetics. Oct. 16, 1988. Abstract.

Maha, G.C. 1987. Letter to the Editor: Reply to Dr. Wians, et. al. Proceedings of the Society of Armed Forces Medical Laboratory Scientists. 16(2):31.

Maha, G.C. 1986. Maternal Serum Alpha Fetoprotein Testing: A New Medico-Legal Problem for the Clinical Laboratory. Proceedings of the Society of Armed Forces Medical Laboratory Scientists. 15(4):11.

Maha, G.C. 1984. Beta-HCG Pregnancy Tests - How Good Are They? Proceedings of the Society of Armed Forces Medical Laboratory Scientists. 13(1):25.

Maha, G.C., L.R. Maxson, and R. Highton. 1983. Immunological Evidence for the Validity of *Plethodon kentucki*. J. Herpetology 17(4):398-400.

Dowling, H. G., R. Highton, **G. C. Maha** and L. R. Maxson. 1983. Biochemical Evaluation of Colubrid Snake Phylogeny. J. Zool. Lond. 201:309-329.

Maha, G.C. 1982. Comparative Molecular Systematics of Select Amphibians and Reptiles. Ph.D. Thesis, Univ III at Urbana.

Maha, G.C., L.R. Maxson, R. Highton, and H. Dowling. 1981. Relationships of the Colubrid Snakes: A Molecular Approach. 24th Annual Meeting of the Society for the Study of Amphibians and Reptiles and 29th Annual Meeting of the Herpetologists' League. Abstract.

Presentations

An introduction to Paternity Evaluation - Interpretation and Problems. Wisconsin Child Support Enforcement Fall Conference. Green Bay, WI. September 28, 29, & 30, 1987.

Paternity Testing Made Easy. Maryland Joint Child Support Council Sixth Annual Conference. Ocean City, MD. October 7, 8, & 9, 1987.

Blood Testing. Illinois Department of Public Aid, Bureau of Child Support Enforcement Management Meeting. Chicago, IL. Nov. 4 & 5, 1987.

Paternity Establishment: New Technologies in Blood Testing & Interpretation of Test Results. West Virginia Conference on Child Support Enforcement. Morgantown, WV. November 16-18, 1987.

Paternity Testing. Richland County Child Support Enforcement Agency, Mansfield, OH. September 14, 1988

Current Issues in Paternity Testing. North Carolina Child Support Council. Raleigh, NC. April 5-7, 1989.

Eastern Regional Interstate Child Support Association (ERICSA) 26th Annual Training Seminar. Kansas City, MO. June 11-15, 1989.

Beyond HLA-A. A Look at New Blood Testing Methods. Florida Family Support Council. 1989 Annual Training Conference, St. Petersburg Beach, FL. June 28-30, 1989.

Interpreting Blood Test Reports. Missouri Office of Prosecution Services Statewide Training Seminar. Osage Beach, MO. Aug. 30 - Sep. 1, 1989.

Future Beyond DNA. 11th Annual Washington Family Support Conference. Olympia, WA. September 13-15, 1989.

HLA and DNA Testing. Human Resources Administration, Office of Legal Affairs, Manhattan Family Court. New York, NY. September 27, 1989.

Paternity Testing: Procedures and Benefits. 3rd Annual Southern Regional Association of State and Territorial Public Health Laboratory Directors, Austin, TX. October 5 & 6, 1989.

DNA Fingerprinting - The Definitive Test. Edufacts '89 (North Carolina Society for Medical Technologists) New Bern, NC. Oct. 11-13, 1989.

Paternity Testing. How and Why it Works. Understanding the Test. Missouri Child Support Enforcement Association Region VI District Meeting. Springfield, MO. Oct. 27, 1989.

Blood Testing - Start to Finish. Missouri Child Support Enforcement Association. Twelfth Annual Training Conference. Osage Beach, MO. Nov. 1-3, 1989.

Recent Developments in Paternity Testing. Selected Issues in Family Law. Columbia, SC. Nov. 17, 1989.

"DNA-Admissible or Inadmissible" The 8th Annual New Jersey Child Support Conference. Atlantic City, NJ. Dec. 13-15, 1989.

Blood Testing Interpretation Missouri Division of Child Support Enforcement Conference. Osage Beach, MO. Feb. 8-9, 1990.

Paternity, Challenges in Child Support: 1990, Indiana State Child Support Division, 1990 Prosecutor Seminar, Bloomington, IN. May 10-11, 1990.

Paternity Testing Seminar. Ontario County Department of Social Services, Canandaigua, NY. August 15, 1990

Paternity: Overcoming the Administrative Barriers, Moving Ahead - Implementing the Family Support Act, The National Child Support Enforcement Association, Baltimore, MD. August 29-30, 1990.

Paternity Testing. Missouri Child Support Enforcement Association, Region IV, Kirksville, MO. September 4, 1990.

Paternity Testing. Columbia County Department of Social Services, Hudson, NY. September 21, 1990.

Paternity Testing: What do the Numbers Mean. Missouri Child Support Enforcement Association, Kansas City, MO. October 10-12, 1990.

Problems in DNA Technology, Ohio Family Support Association, 11th Annual Conference, Worthington, OH. October 28-31, 1990

Missouri Child Support Enforcement Association, Regional Meeting
St. Joseph, MO. February 20, 1991

Child Support Enforcement Meeting, Kansas City, MO. February 21, 1991

DNA Paternity Evidence, Legal Issues & Case Management Training, San Antonio, TX. February 22, 1991

Missouri Child Support Enforcement Association Regional Meeting (Region V), Rolla, MO. April 4, 1991

Missouri Child Support Enforcement Association Regional Meeting Flat River, MO. May 14, 1991

Child Support Enforcement for Indian Children: Moving Toward Solutions. Albuquerque, NM May 30 - June 1, 1991

Missouri Child Support Enforcement Association Regional Meeting Columbia, MO. July 25, 1991

Paternity Testing Quality Control. Toledo, OH. August 2, 1991

Missouri Child Support Enforcement Association 14th Annual Training Conference. Osage Beach, MO. October 29, 1991

Paternity Establishment: Issues for the 1990's. Sponsored by the National Child Support Enforcement Association. November 13, 1991.

The role of the Courts in the establishment of paternity. 16th Annual Indiana Child Support Enforcement Seminar. Columbus, IN June 18 - 19, 1992.

Paternity Testing in the Courts from an Expert's Point of View. Kansas Child Support Enforcement Association Conference. Topeka, KS. July 15 - 16, 1992

DNA and HLA Testing: What Does 99.99% Mean to Me as a Finder of Fact? (Judicial Track). National Child Support Enforcement Association's 41st Annual Training Conference & Exposition. Orlando, FL August 23 - 27, 1992

Paternity Establishment: Issues for the 1990's. Sponsored by the National Child Support Enforcement Association/Washington State Family Support Council 14th Annual Training Conference. Tacoma, WA September 16 - 18, 1992.

Science of Parentage Establishment. Nebraska Child Support Enforcement Association Annual Training Conference. Kearney, NE October 7 - 9, 1992.

Blood Tests and the Court Room. Missouri Child Support Enforcement Association 15th Annual Training Conference. Clayton, MO October 20 - 23, 1992.

DNA Advancements. Washington Association of Prosecuting Attorneys (WAPA) Conference. Leavenworth, WA April 19 - 21, 1993

Legal Issues in Paternity Testing. Missouri Child Support Enforcement Association 16th Annual Training Conference. Springfield, MO September 21 - 24, 1993.

Trial and Appellate Judges Seminar, The Mississippi Judicial College. Natchez, MS April 27 - 29, 1994.

Atlantic County Child Support Conference, Atlantic Community College, NJ August 3, 1994.

Genes are a Perfect Fit: Genetic Marker Testing (Legal Track). National Child Support Enforcement Association's 43rd Annual Training Conference & Exposition. Boston, MA August 21 - 25, 1994.

Paternity Testing. Missouri Child Support Enforcement Association 17th Annual Training Conference. Lake of the Ozarks, MO October 18 - 21, 1994.

Paternity Genetic Testing. Illinois Family Support Enforcement Association Sixth Annual Conference on Support Enforcement. Urbana, IL October 23 - 25, 1994.

Recent Developments in the Use of DNA in Criminal and Paternity Matters. Iowa Judges Conference, Des Moines, IA December 7 - 9, 1994.

New Technologies in DNA Testing. St. Luke's Ob/Gyn & Idaho Perinatal Project, Winter Conference, Boise, ID February 1 - 3, 1995.

Bloodtesting. 19th Annual Child Support Enforcement Seminar, Indianapolis, IN June 19 - 21, 1995.

Recent Developments in the Use of DNA in Criminal and Paternity Matters. 122nd Annual Meeting of The Iowa State Bar Association, Des Moines, IA June 21 - 23, 1995.

DNA Testing. Saratoga Bar Association. Saratoga, NY June 28, 1995.

Genes are a Perfect Fit: Genetic Marker Testing. National Child Support Enforcement Association's 44th Annual Training Conference & Exposition. Kansas City, MO August 20 - 24, 1995.

DNA Round Table. Wisconsin Child Support Training Program. Lake Geneva, WI September 27 - 29, 1995.

DNA and Forensics. Fall Challenge 1995. N.C. Society of Clinical Laboratory Scientists & N.C. State Society of American Medical Technologists. Durham, NC October 11 - 13, 1995.

Interpretation of Paternity Results and Changing Technologies. Missouri Child Support Enforcement Association 18th Annual Training Conference. Lake of the Ozarks, MO October 24 - 27, 1995.

Genetic Testing & Legal Issues. National Child Support Enforcement Association UIFSA - Child Support Reform. Charleston, SC November 16 - 17, 1995.

DNA Evidence. Washington Association of Prosecuting Attorneys (WAPA) Conference. Spokane, WA April 25 - 29, 1996.

Paternity Litigation for Attorneys. 1996 Child Support Enforcement Conference. Indiana Prosecuting Attorneys Association. Indiana Child Support Alliance. Angola, IN June 2 - 5, 1996.

Paternity Testing Fundamentals. Springfield, MO June 28, 1996.

Genes are a Perfect Fit: Genetic Marker Testing. National Child Support Enforcement Association's 45th Annual Training Conference & Exposition. Louisville, KY August 25 - 29, 1996.

Paternity: Using the Expert Witness / Recent Case Law. Family Support Enforcement Association Conference, Bend, OR October 2 - 4, 1996.

Jurassic Park Technology: Establishing Parentage after Death. Family Law in the 21st Century. ABA Family Law Section, Washington, DC October 16 - 20, 1996.

Two for One: The Law of Paternity Testing in Missouri. Missouri Child Support Enforcement Association 19th Annual Training Conference. Lake of the Ozarks, MO October 22 - 25, 1996.

Legal Issues in Paternity Testing. The 15th Annual New Jersey Child Support Conference. Atlantic City, NJ December 11 - 13, 1996.

Paternity Establishment. National Child Support Enforcement Association, Child Support Decision-Making: 2000. Washington, DC December 15 - 17, 1996.

DNA Evidence in Civil and Criminal Cases. Evidence for the Trial Lawyer, North Carolina Academy of Trial Lawyers, Greensboro, NC February 14, 1997.

LabCorp Inc. Genetic Testing; Old and New. North Dakota Family Support Council 8th Annual Conference, Mandan, ND April 29 - May 2, 1997.

Paternity Tests. Eastern DRAP Training Conference '97, Reading, PA June 2 - 4, 1997.

Genetic Evidence in the Paternity Case. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training, Vancouver, WA July 21 - 23, 1997.

How to Get in Your Genes: Evidentiary Issues and Other Genetic Testing Tips for Paternity Trials. National Child Support Enforcement Association's 46th Annual Training Conference & Exposition. Phoenix, AZ August 24 - 28, 1997.

What's in Your Genes? Oklahoma Child Support Enforcement Association, Annual Fall Training Conference. Oklahoma City, OK September 10 - 12, 1997.

DNA Evidence. North Carolina Conference of District Attorney's, Sexual Assault Trial Advocacy School. Asheville, NC September 14 - 18, 1997.

Paternity Testing. Missouri Child Support Enforcement Association 20th Annual Training Conference. Lake of the Ozarks, MO October 21 - 24, 1997.

Legal Issues Related to Paternity. Domestic Relations Association of Pennsylvania, 30th Annual Training Conference. Harrisburg, PA October 26 - 30, 1997.

Legal Issues in Paternity Testing. New Jersey Association of County Welfare Attorneys. Freehold, NJ December 4, 1997.

Legal Issues in HLA and DNA Tests in Paternity Proceedings. Law Guardian Training Seminar. Utica, NY March 6, 1998.

Establishing Paternity when the Alleged Father is Deceased. Ohio Child Support Directors Association Spring Conference. Columbus, OH March 30 - April 1, 1998.

Are Buccal Swabs Better Than Blood? 1998 Annual Training Conference, Indiana Child Support Bureau and the Indiana Child Support Alliance. Angola, IN June 7 - 10, 1998.

Paternity Testing. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training, Spokane, WA July 20 - 24, 1998.

Make Sure the "Genes" Fit: Evidentiary Issues in Genetic Testing and Other Tips for Paternity Trials. National Child Support Enforcement Association's 47th Annual Training Conference & Exposition. Washington, DC August 2 - 6, 1998.

Uniform Parentage Act. Missouri Office of Prosecuting Services, Fall State Wide Training, Child Support Training, Osage Beach, MO September 1 - 3, 1998.

Parentage Testing. Washington State Family Support Council, Seattle, WA October 12 - 14, 1998.

Genetic Testing Panel & Uniform Parentage Act, Nebraska Child Support Enforcement Association Fall Conference, Kearney, NE October 26 - 28, 1998.

What Probability of Paternity Do You Need For A Legal Presumption: 95%, 98%, 99% or 99.9%. Missouri Child Support Enforcement Association 21st Annual Training Conference. Kansas City, MO October 27 - 30, 1998.

Paternity Issues: Uniform Parentage Act. 10th Annual Family Support Enforcement Association Conference. Eugene, OR October 29 - 30, 1998.

Evidentiary Issues in Genetic Testing. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training, Wenatchee, WA March 22 - 24, 1999.

Uniform Parentage Act. Wichita SRS/CSE Spring CLE Seminar, Wichita, KS May 21, 1999.

Introduction to Genetic Testing. 1999 Annual Training Conference, Indiana Child Support Alliance. French Lick, IN June 9 - 11, 1999.

Genetic Testing Panel, Nebraska Child Support Enforcement Association Fall Conference, Kearney, NE September 22 - 24, 1999.

Genetic Testing. Washington State Family Support Council, Seattle, WA September 27 - 29, 1999.

Western Interstate Child Support Enforcement Conference., Springfield, MO October 4 - 7, 1999.

Uniform Parentage Act. 10th International Symposium on Human Identification, Coronado Springs Resort, Orlando, FL September 30 - October 3, 1999.

Uniform Parentage Act. American Association of Blood Banks, 52nd Annual Meeting, San Francisco, CA November 4 - 7, 1999.

Fundamentals of Paternity Testing. 2000 Annual Training Conference, Indiana Child Support Alliance. Indianapolis, IN June 12 - 14, 2000.

Uniform Parentage Act. American Association of Blood Banks, 54th Annual Meeting, Washington, DC November, 2000.

Evidentiary Issues in Genetic Testing. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training, Wenatchee, WA April 1 - 4, 2001.

Fundamentals of Paternity Testing. 2001 Annual Training Conference, Indiana Child Support Alliance. Maryville, IN June 13 - 15, 2001.

Paternity Testing, the Uniform Parentage Act and Family Studies, Illinois Family Support Enforcement Association, Collinsville, IL October 14 - 16, 2001.

Washington's Uniform Parentage Act. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training, Vancouver, WA May 6 - 8, 2002.

Uniform Parentage Act. Wichita SRS/CSE Spring CLE Seminar, Wichita, KS May 24, 2002.

Fundamentals of Paternity Testing. 2002 Annual Training Conference, Indiana Child Support Alliance. Indianapolis, IN May 28 - 31, 2002.

The Promise and Limitations of Genetic Testing for Parentage. Genetic Bonds and Family Law: The Challenge of DNA Parentage Testing. New Orleans, LA March 27-28, 2003.

Washington's Uniform Parentage Act. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training, Spokane, WA May 5 – 9, 2003.

Genetic Testing for Parentage and Its Limitations. 2003 Annual Training Conference, Indiana Child Support Alliance. Evansville, IN June 11-13, 2003.

Paternity Disestablishment. Missouri Child Support Enforcement Association Annual Training Conference. Kansas City, MO September 16-19, 2003.

AABB 2002 Annual Report. Parentage Testing SIG. AABB. 56th Annual Meeting, San Diego, CA. October, 2003

Paternity Testing Interpretation. Wisconsin Child Support Enforcement Fall Conference. Green Bay, WI. September 24-26, 2003.

Paternity Disestablishment. Western Interstate Child Support Enforcement Conference., Las Vegas, NV November 3-6, 2003.

Parentage Testing. The Annual New Jersey Child Support Conference. Atlantic City, NJ December 10 - 12, 2003.

DNA Evidence in Paternity Cases. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training and Establishing Paternity Judgements, Bellingham, WA May 3 – 7, 2004.

Interpretation and Use of Paternity Testing in Establishing Relationships. 2004 Annual Training Conference, Indiana Child Support Alliance. Indianapolis, IN June 8-10, 2004.

Hot Topics in Paternity. National Child Support Enforcement Association Tele-Talk. June 17, 2004.

Paternity Testing - Court Room Questions. Kansas Child Support Enforcement Association Annual Conference. Lawrence, KS June 25, 2004.

Paternity Testing --- Common Issues? Illinois Family Support Enforcement Association (IFSEA), Matteson, IL October 18, 2004.

AABB 2003 Annual Report. Parentage Testing SIG. AABB. 57th Annual Meeting, Baltimore, MD. October 23, 2004.

Paternity Disestablishment - Pros & Cons. Western Interstate Child Support Enforcement Council (WICSEC). Denver, CO October 26, 2004.

Genetic Testing Update. Wichita SRS/CSE Autumn CLE Seminar, Wichita, KS November 19, 2004.

Basic Paternity / Genetic Testing. Washington Association of Prosecuting Attorneys, Child Support Enforcement Training and Establishing Paternity Judgments, Olympia, WA May 2 - 6, 2005.

AABB Annual Report and 7th Edition of Standards for Relationship Testing. In Parentage Testing I: Current Administrative Issues in Parentage Testing. AABB Annual Meeting, Seattle, WA October 15, 2005.

Problems Associated with Using STRs for Engraftment Monitoring. In What's new inHLA Typing, Antibody Identification and Engraftment Monitoring Using Polymorphisms in Other Genetic Systems. AABB Annual Meeting, Seattle, WA October 16, 2005.

Legal Issues in Parentage Testing. Illinois Family Support Enforcement Association (IFSEA), Fairview Heights, IL October 17, 2005.

Love & Science: Understanding the Process. Erie Law Institute. Buffalo, New York April 7, 2006.

Paternity Testing and Washington UPA. Washington Association of Prosecuting Attorneys, Child Support Enforcement 2006 Annual Training Conference, Silverdale, WA May 1 - 5, 2006.

Genetic Testing for Massachusetts. Attorney Staff Meeting, Child Support Enforcement Division of the Department of Revenue. Boston, MA May 19, 2006.

Problems Associated with Using STRs for Engraftment Monitoring. In What's new in HLA Typing, Antibody Identification and Engraftment Monitoring. AABB Annual Meeting, Miami, FL. October 22, 2006.

Genetic Testing and Paternity Identification. Washington Association of Prosecuting Attorneys, Child Support Enforcement 2007 Annual Training Conference, Wenatchee, WA May 7 - 9, 2007.

Lies and Liaisons Unraveled by Genetic Testing. 2007 Annual Training Conference, Nevada Child Support Enforcement Training Association (NCSETA). Las Vegas, NV September 25-27, 2007.

DNA Testing, 4th Annual Northwest Regional Enrollment Conference. Suquamish, WA September 28, 2007.

Lies and Liaisons Exposed by DNA. Division of Child Support Enforcement, Annual Child Support Meeting, The Sagamore, Bolton Landing, NY March 11 - 13, 2008.

Paternity & Relationship Testing: Scientific and Legal Issues. 2008 Indiana Child Support Enforcement Conference. Indianapolis, IN June 4 - 6, 2008.

A Primer for DNA Analysis for Paternity, Annual OCSE Region 1 Training Conference, Hyannis Port, MA September 16, 2008

Genetic Testing in Paternity Cases, Washington Association of Prosecuting Attorneys, Child Support Enforcement 2009 Annual Training Conference, Silverdale, WA May 11-15, 2009

DNA Paternity Testing and Legal Issues. 33rd Annual Child Support Conference. The Indiana Child Support Alliance, Merrillville, IN June 17 - 19, 2009.

Using DNA Testing to Establish Paternity. Region X Tribal Child Support Conference. Suquamish, WA. August 26 - 28, 2009.

The Impact of Legal Decisions on the Establishment of Paternity, 2010 NCSEA Policy Forum & Training Conference "The Changing Faces of Families", Washington, DC, January 25-27, 2010

DNA Evidence and Analysis for the IV-D Professional: Legal Issues in Parentage Testing, 2010 National Child Support Attorney College, Costa Mesa, CA April 26-29, 2010.

Genetic Testing in Paternity Cases, Washington Association of Prosecuting Attorneys, Child Support Enforcement 2010 Annual Training Conference, Spokane, WA May 3-8, 2010.

DNA Identification and Testing Workshop, Addis Ababa, Ethiopia, May 29, 2010

Parentage, 14th Annual AB 1058 Child Support Training Conference, San Francisco Airport Marriott, Burlingame, California September 28 - October 1, 2010

Genetic Testing in Parentage Cases, 2011 Family Law Institute, Judicial Council of California, Los Angeles, CA April 13-15, 2011

Genetic Testing in Parentage Cases, State Wide Attorney Meeting, John Adams Courthouse, Boston, MA May 20, 2011.

Paternity Forum: Beyond Biology, Bay Area Out Reach Conference for Child Support, San Francisco, CA June 7 – 9, 2011

DNA Paternity Testing, Indiana Child Support Conference, Indianapolis, IN June 15 – 17, 2011

Understanding DNA Results for the Courts, WICSEC 28th Annual Training Conference, Austin, TX October 30 – November 3, 2011.

Legal Issues with Paternity Testing, 2012 Child Support Enforcement Conference, Indiana Department of Child Services, Merrillville, IN June 13 – 15 2012.

Relationship Testing Calculations: Standard Trio, Duo, RMNE and PE. AABB Audioconference. September 19, 2013. <http://www.aabb.org/events/audioconferences/Pages/descriptions.aspx#0919>

New Frontiers in Paternity Establishment. 10th Annual Child Support Conference, Rethinking Child Support: Who Moved Our Mission? Warwick, RI May 22, 2014.

DNA Testing, 38th Annual Child Support Enforcement Conference, Florence, IN June 4 – 6, 2014.

Complex Relationship Statistics Workshop. Kelly Beatty, George Frech, Donna Housley, George C. Maha. 25TH International Symposium on Human Identification, Phoenix, AZ. October 29, 2014.

Court Appearances as an Expert
(State, city and number of times)

Alabama	Anniston (1)
California	Los Angeles (2)
Colorado	Denver (1)
Connecticut	Hartford (1)
Florida	Miami (2), Quincy (2)
Illinois	Urbana (1), Wheaton (1)
Indiana	Bloomfield (1), Bloomington (1), Marion (2), Martinsville (1), New Castle (2), Nashville (1), Gary (1), Terre Haute (1)
Kentucky	Louisville (2), Bowling Green (1), Owensborough (1)
Maryland	Rockville (2)
Massachusetts	Dudley (1)
Missouri	Clinton (1), Columbia (2), Harrisonville (1), Independence (2), Jackson (1), Kansas City (2), Kennett (1), Liberty (1), Monticello (1), Rolla (1), St. Charles (2), St. Louis (8), Steeleville (1), Vienna (1)
Montana	Baker (1)
Nebraska	Kearney (2), Lincoln (2), Beatrice (1), Omaha (1)
New Jersey	Atlantic City (1)
North Carolina	Newbern (1), Newton (2)
Ohio	Canton (4), Kenton (1), Hillsborough (4), Eaton (1), Port Clinton (1), Toledo (4), Akron (3)
Oklahoma	Lawton (1), Oklahoma City (1)
Oregon	Burns (1)
Pennsylvania	Philadelphia (2), Easton (1), Lancaster (1), Lebanon (2)
South Carolina	Edgefield (1)
Vermont	Woodstock (1), St. Johnsbury (1)
Virginia	Fairfax (2)
Washington	Seattle (2)
West Virginia	Parkersburg (1)
Wisconsin	Wausau (1), Crandon (1), Appleton (1), Medford (2), Superior (1), Milwaukee (2)

CV Medical Director

Raf Schepers

Kapellelaan 89
1860 Meise
Belgium
Nationality: Belgian

June 6, 2016

Cell: + 32 475 32 20 70
rischeper@gmail.com

EDUCATION

Ph.D. Neuroscience, 2007, National Institutes of Health, Baltimore, Maryland, USA, University of Maryland, Baltimore, Maryland, USA

Clinical Pathologist (cum maxima laude), 2001, Université Catholique de Louvain (UCL), Brussels, Belgium

Pharmacy degree, 1995, Katholieke Universiteit Leuven (KUL), Leuven, Belgium

Masters of Industrial Pharmacy (cum laude), 1996 - KUL, Leuven, Belgium

Degree Radiation Protection and Radioimmunoassay, 2001, UCL, Brussels – Authorization to use radioisotopes for IVD. Federal Agency for Nuclear Control, 2010.

Degree Quality Management, 2010, KUL, Leuven, Belgium

EXPERIENCE

LabCorp Clinical Trials, April 2014 - current

Medical Director and Laboratory Director, LabCorp Clinical Trials, Mechelen

Chief Clinical Pathologist for LabCorp Clinical Trials

Centraal Laboratorium Hasselt – Centrum Medische analyses, May 2011 – Dec 2013, Hasselt, Belgium

Clinical Pathologist, Laboratory manager Toxicology and Occupational Medicine (LCMSMS, GCMS, ICPMS ...)

Medisch Laboratorium Medina, May 2009 – March 2014, Dendermonde and Aalter, Belgium

Clinical Pathologist

QA Manager

Laboratory manager Biochemistry - ad interim Laboratory manager Endocrinology, Hematology, Coagulation

BARC N.V., Sept 2008 – April 2009, Bioanalytical Research Company, Zwijnaarde, Belgium

Clinical Pathologist, Laboratory manager RIA and Toxicology, Manager Global harmonization

Post-doctoral Fellow, Aug 2007- Aug 2008, Department of Neurosurgery, Johns Hopkins University, Baltimore, Maryland, USA., Principal investigators: Dr. M. Ringkamp, Dr. RA Meyer, Dr. J. Campbell

Post-doctoral research with regards to the discovery of mechanisms of itch and neuropathic pain (in vivo electrophysiology in monkey).

Doctoral Fellow, Nov 2003 – Juli 2007, Integrative Neurosciences Branch, NIDA, NIH, Baltimore, Maryland, USA,

Advisor: Dr. Toni Schippenberg Thesis: Mechanisms of brainstem mu and kappa opioid mediated descending modulation of inflammatory and neuropathic pain. (analytical skills mastered: neurosurgery, brain microdialysis, microbore HPLC with laser fluorescence detection of neurotransmitters in brain dialysates)

NIH Exchange Visitor, Oct 2001 – Oct 2003, Chemistry and Drug Metabolism Section, Clinical Pharmacology and Therapeutics Research Branch, NIDA, NIH, Baltimore, Maryland, USA, Advisor: Dr. Marilyn Huestis

Clinical researcher: principal investigator of PD and PK studies of drugs of abuse.

(analytical skills: GC-MS / LCMSMS / MALDI-TOF)

HONORS

Reviewer: The International Journal of Neuropsychopharmacology
Clinical Pharmacology and Therapeutics
Pharmacology Biochemistry and Behavior

IASP travel award IASP meeting 2008

Democratically elected student representative, Faculty Farmaceutical sciences, KUL, Leuven, Belgium, 1993-1995.

LANGUAGE SKILLS

- trilingual Dutch, English, French
- German: good understanding, basic speaking and writing

PUBLICATIONS

Zapata A, Pontis S, Schepers RJ, Wang R, Oh E, Stein A, Bäckman CM, Worley P, Enguita M, Abad MA, Trullas R, Shippenberg TS. Alleviation of neuropathic pain hypersensitivity by inhibiting neuronal pentraxin 1 in the rostral ventromedial medulla. *J Neurosci*. 2012 Sep 5;32(36):12431-6.

Ringkamp M, Schepers RJ, Shimada SG, Johanek LM, Hartke TV, Borzan J, Shim B, LaMotte RH, Meyer RA. A role for nociceptive, myelinated nerve fibers in itch sensation. *J Neurosci*. 2011 Oct 19;31(42):14841-9.

Ringkamp M, Johanek LM, Borzan J, Hartke TV, Wu G, Pogatzki-Zahn EM, Campbell JN, Shim B, Schepers RJ, Meyer RA. PLoS One. Conduction properties distinguish unmyelinated sympathetic efferent fibers and unmyelinated primary afferent fibers in the monkey. 2010 Feb 5;5(2):e9076.

Schepers RJ and Ringkamp M. Thermoreceptors and thermosensitive afferents. *Neurosci Biobehav Rev*. 2008 Aug 7.

Schepers RJ, Mahoney JL, Zapata A, Chefer V, Shippenberg TS. The effects of local perfusion of DAMGO on extracellular GABA and glutamate concentrations in the rostral ventromedial medulla. *J Neurochem*. 2008 Feb;104(3):806-17.

Schepers RJ, Mahoney JL, Gehrke BJ, Shippenberg TS. Endogenous Kappa-Opioid Receptor Systems Inhibit Hyperalgesia Associated With Localized Peripheral Inflammation. *Pain*. 2008; *Pain*. 2008 Aug 31;138(2):423-39.

Schepers RJ, Mahoney JL, Shippenberg TS. Inflammation-induced changes in rostral ventromedial medulla mu and kappa opioid receptor mediated antinociception. *Pain*. 2008 Jun;136(3):320-30.

Schepers RJ, Oyler JM, Joseph RE Jr, Cone EJ, Moolchan ET, Huestis MA. Methamphetamine and amphetamine pharmacokinetics in oral fluid and plasma after controlled oral methamphetamine administration to human volunteers. *Clin Chem*. 2003;49(1):121-32.

Kim I, Barnes AJ, Oyler JM, Schepers R, Joseph RE Jr, Cone EJ, Lafko D, Moolchan ET, Huestis MA. Plasma and oral fluid pharmacokinetics and pharmacodynamics after oral codeine administration. *Clin Chem*. 2002;48(9):1486-96.

Schepers R, Mourad M, Wagner C, Chaib-Eddour D, Malaise J, Squifflet JP and Wallemacq PE. Evaluation of cystatin C and serum amyloid A (SAA) in the follow up of 22 kidney transplant patients. *Laboratorine Medicina* 2001;10:10-16.

Mourad M, Malaise J, Chaib Eddour D, De Meyer M, Konig J, Schepers R, Squifflet JP, Wallemacq P. Pharmacokinetic basis for the efficient and safe use of low-dose mycophenolate mofetil in combination with tacrolimus in kidney transplantation. Clin Chem. 2001;47(7):1241-8.

Mourad M, Malaise J, Chaib Eddour D, De Meyer M, Konig J, Schepers R, Squifflet JP, Wallemacq P. Correlation of mycophenolic acid pharmacokinetic parameters with side effects in kidney transplant patients treated with mycophenolate mofetil. Clin Chem. 2001;47(1):88-94.

Adams E, Schepers R, Gathu LW, Kibaya R, Roets E, Hoogmartens J. Liquid chromatographic analysis of a formulation containing polymyxin, gramicidin and neomycin. Journal of Pharmaceutical and Biomedical Analysis 1997;15(4):505-511.

Adams E, Schepers R, Roets E, Hoogmartens J. Determination of neomycin sulfate by liquid chromatography with pulsed electrochemical detection. Journal of Chromatography A 1996;741(2):233-240.

POSTERS AND PRESENTATIONS

Oral presentation, Matrix Assisted Laser Desorption Ionization – Time of Flight Mass Spectrometry: methods and applications for forensic and toxicologic research, Society of Forensic Toxicology (SOFT) meeting, Milwaukee, IL, 2000.

Oral presentation, Methamphetamine and amphetamine pharmacokinetics in oral fluid and plasma after controlled oral methamphetamine administration to human volunteers. SOFT, New Orleans, LA, 2001.

Poster, Inflammation-induced changes in rostral ventromedial medulla mu and kappa opioid receptor mediated antinociception, International Association for the study of Pain (IASP), Sydney, Australia, 2004

Poster, The effects of local perfusion of DAMGO on extracellular GABA and glutamate concentrations in the rostral ventromedial medulla, Society for Neuroscience (SfN), San Diego, USA 2007

Oral presentation, Kappa opioid receptor antinociception: recent advances in basic and clinical research. Blaustein seminars, JHU, 2008

Poster, A subpopulation of mechanosensitive A-fiber nociceptors in monkey respond to pruritic stimuli, IASP, 2008

EXTRACURRICULAR ACTIVITIES

- Organ, first price interdisciplinary competition of music instruments, awarded by the city of Hasselt, 1990
- Bassoon, level 4, Elsden music school, 1990
- Piano, level 4, Hasselt music conservatory, 1993
- Accompanist, choir "Virga Jesse", 1988-1996, quintet Cantabile 1993-1995
- Choir Director, choir "Virga Jesse", 2013-2014
- At current : occasional swim, walk and ski holiday

Raf Schepers, PhD
Chief Clinical Pathologist
Director Laboratory Operations (EU)

LabCorp
CLINICAL TRIALS

RS

06 Jun 2016

CV Medical Director – RTP

Name: Arundhati Chatterjee

Education:

<u>High School</u>		<u>Attended</u>		
<u>Name of High School</u>		<u>From</u>	<u>To</u>	<u>Graduate</u>
Multipurpose Government High School		1965	1967	Yes
<u>College</u>		<u>Attended</u>		
<u>Name of College or University</u>	<u>Major</u>	<u>From</u>	<u>To</u>	<u>Degree</u>
Bethune College, Calcutta, India	Physics, Chemistry, Biology, English	9/67	8/68	Premedical
Calcutta Medical College University of Calcutta, West Bengal, India	Medical Studies	1968	1975	MBBS

Job Experience:

<u>Institution</u>	<u>Title</u>	<u>Job Duties</u>	<u>From</u>	<u>To</u>
LabCorp CMBP RTP, NC	Medical Director	Biochemical Genetics, Forensic Identity, Histology, Oncology, Molecular Genetics and Products	9/07	Present
	Subspecialty Medical Director	Uropathology	5/04	Present
	Subspecialty Medical Director	Uropathology/Cytopathology	5/04	9/07
	Pathologist and Director of Cytopathology and Surgical Pathology	Anatomic and Clinical Pathology	1994	5/04
Womack Army Medical Center, Fort Bragg, NC	Staff Pathologist and Chief, Clinical Pathology	Anatomic and Clinical Pathology	1988	1993
Roche Biomedical Laboratories, Fayetteville, NC and Pinehurst, NC	Director of Cytopathology Laboratory	Cytopathology	1990	1994

Awards, Licenses, Board Certifications:

<u>Award, Certification</u>	<u>Date</u>	<u>Certification Number</u>	<u>Specialization</u>
American Board of Pathology	7/98 5/87		Cytopathology Anatomic and Clinical Pathology
North Carolina	1987	32199	
South Carolina	2004	27328	
Arizona	1985	15613	

Laboratory Corporation of America™ Holdings (LabCorp)
Center for Molecular Biology and Pathology
1912/1904 Alexander Drive

page 1 of 1

Research Triangle Park, NC 27709

Signature

A. Chatterjee

Effective: 1/4/2016

Review Date: 1/8/16

Forms

Supply Reorder Form

To reorder supplies, use the LabCorp pre-printed, study specific reorder forms.

Complete and fax or e-mail the Supply Reorder Form to the fax number/e-mail address listed on top of the form.

Please allow a minimum of 5 to 7 working days for assembly and delivery of reordered supplies.

Dry Ice Order Form

Please fill out the required fields if not pre-printed, and fax to the number mentioned on the form.

Dry Ice has to be delivered 1 DAY PRIOR to the shipment of the samples.

SUPPLY REORDER FORM

University of California San Francisco Protocol : POINT NCT00991029 Site number: Investigator:	by fax: +32 15 342 147 by email: AdminOps@labcorp.com GCP / LSN: 101993
---	--

1. Kits

QUANTITY	KIT TYPE
	Baseline DNA + Plasma

2. Documents

QUANTITY	DESCRIPTION	CTX MNEMONIC
	Supply Reorder Form	SUPFO
	Dry Ice Order Form	DYOF

3. Additional Material

QUANTITY	DESCRIPTION	CTX MNEMONIC
	10 mL EDTA Tube	EDT10
	2 mL Cryovial	CRYO2
	10 mL Simport Cryovial	10CRY

SECTION TO BE COMPLETED BY THE SITE	
Order placed by:	
Order date:	
Phone number:	
Date supplies required*:	

FOR LABCORP USE ONLY	
Date received:	
Order handled by:	
Date input CTPM/CTX:	
SWO number (CTX only):	
Expected delivery date:	

***ALLOW AT LEAST 5 TO 7 WORKING DAYS FOR DELIVERY OF SUPPLIES – EU**