

Cooperative Human Tissue Network (CHTN) XY CONGRESS NOV. 2014



Helping researchers complete the puzzle.

Kerry R. Wiles, Coordinator/Director
CHTN Western Division at Vanderbilt University Medical Center

Agenda

Item 1

History of CHTN

Item 2

Requirements and guidelines to creating a successful biorepository and serving clients

Item 3

Key functions of a good repository/biobank

Item 4

Sample workflows

Item 5

Societies, Accreditation and other information

Item 6

Follow up with Q&A



NCI Vision

History of CHTN

- The Goal- “..to stimulate, for the good of the public, cooperative efforts to collect and distribute human tissues and to thereby facilitate research utilising those tissues”
- 1987, NCI funded 3 sites
- 1991, a 4th site was added (CWRU)
- 2001, VUMC and UVA received the awards (VUMC unseating CWRU)
- 2013, Open competition, all current CHTN divisions awarded
- Over 1 million specimens served to over 3200 investigators



Creating Networks

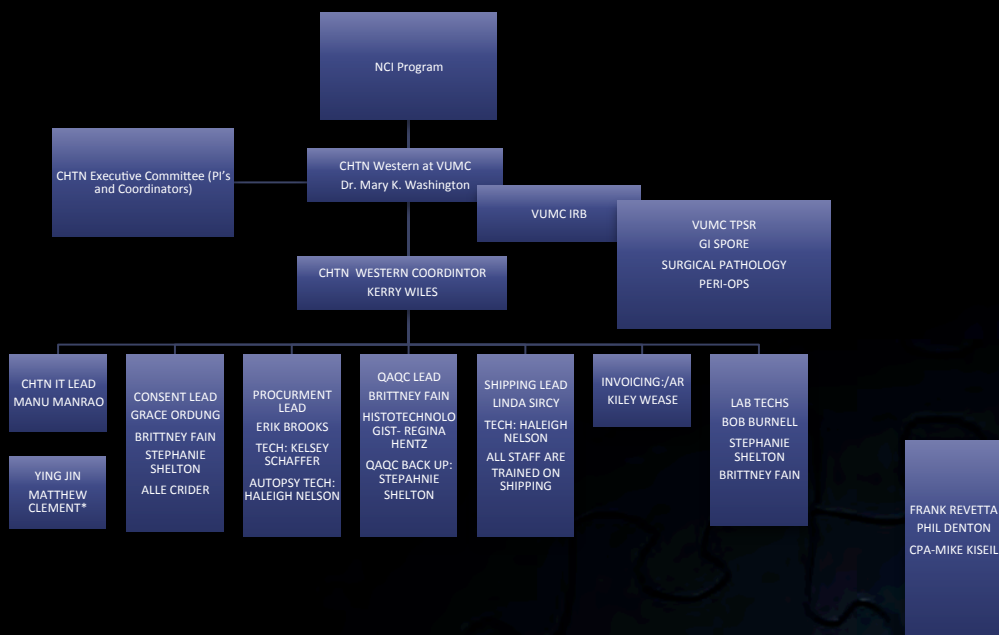


NCI Awarded academic centers with hospitals.

Specimens to reach researchers



The activities were expected to encourage basic science, developmental, translational studies in cancer research, molecular biology, immunology and genetics



Types of Biospecimens provided by the CHTN

- Malignant
- Indeterminate
- Benign
- Pre-invasive neoplastic
- Diseased (non-neoplastic)
- Normal Uninvolved (Histologically normal)
- Normal



Uniqueness of the CHTN

Consists of six divisions

UAB

- Large FFPE patient archived blocks
- Pancreas SPORE and access to Pancreatic cancers
- Ovarian SPORE and access to Ovarian cancers

UPENN

- Large hospital system =access to specimens
- Gynecologic Tumors
- Kidney samples
- Orthopedic samples
- Whole Eyes

UVA

- TMA
- Lung malignancies

NATIONWIDE CHILDREN'S HOSPITAL

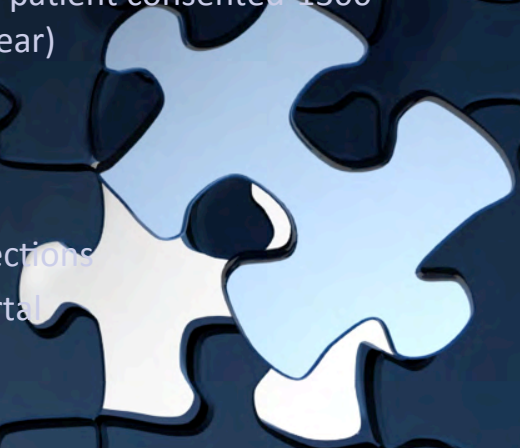
- Pediatric samples
- GOG biospecimens
- COG biospecimens

OSU

- Fresh Shipments
- GI Samples
- GU Samples
- Ovarian SPORE
- 2 consortium sites

VUMC

- Fresh Shipments
- GI Samples (98% of pts consented)
- GU Samples 95% of patient consented-1300 Prostatectomies a year)
- Adult consent
- Biofluids
- Normal controls
- Platinum Level Collections
- Access to Donor Portal



What can CHTN do?

Prospective Procurement Model



- Fresh (Specimens are not QAQC'd before shipping)
- FFPE
- OCT
- Snap frozen, Routine, Isopentane, -80
- Slides (US or S)
- TMAs
- Access to unused banked samples
- Clinical data
- Consent w/FU
- Specialized services
 - Added charge



STANDARDIZATION-SOPS AND DISEASE LIST COMMON DATA ELEMENTS



The last 12 years there has been a lot of talk.....

CHTN has been doing it all along....

Standardized Operating and Collection Procedures

Common Data Elements

Standardized Disease List

Adjusting operations to reflect current trends, requests and literature per investigator requests



Biobanking for Medicine Market Forecast

Where you get your samples will become increasingly important.

Confidential Marketing Document

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Total Market (\$bn)	12.90						22.71						37.96
AGR (%)		12	13	13	12	11	10	10	9	9	8	7	
CAGR (%)		11.98					8.94						

Market consolidation where networks of biobanks are being connected making samples accessible to researchers- a “biospecimen boom” causing a huge increase in CAGR..
Short-term

Growth saturation occurs between 2018 and 2024 saturating the market. The Compound Annual Growth Rate declines due to this market (industry) maturation. Most of this growth will come from commercial entities entering the market

Reproducible results? Wah?

Who needs those.....

- *High failure rate of drugs in clinical trials(1) -

 - >Phase II (efficacy) 66% Failure Rate

 - >Phase III (side effects) 50% Failure rate

- *Inability to reproduce research results(2)-

 - >LA Times Report on Amgen's attempt to validate 53 High profile research studies. Only 6 studies could be validated

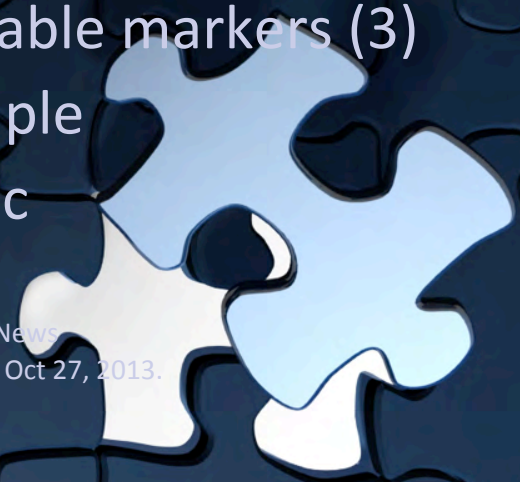
- *Diagnostic Platforms not rapidly producing viable markers (3)

 - >150,000 papers making claim to a couple

Thousand biomarkers- ONLY ~100 used in clinic

References:

1. New Drug Failure Rates rising in Phase II, III clinical trials June 2, 2011, Highlight Health. MEDCITY News
2. Hiltzik, Michael. Science has lost its way, at a big cost to humanity. Los Angeles Time Newspaper. Oct 27, 2013.
3. Poste, G. Nature 2011



CHTN SOPs

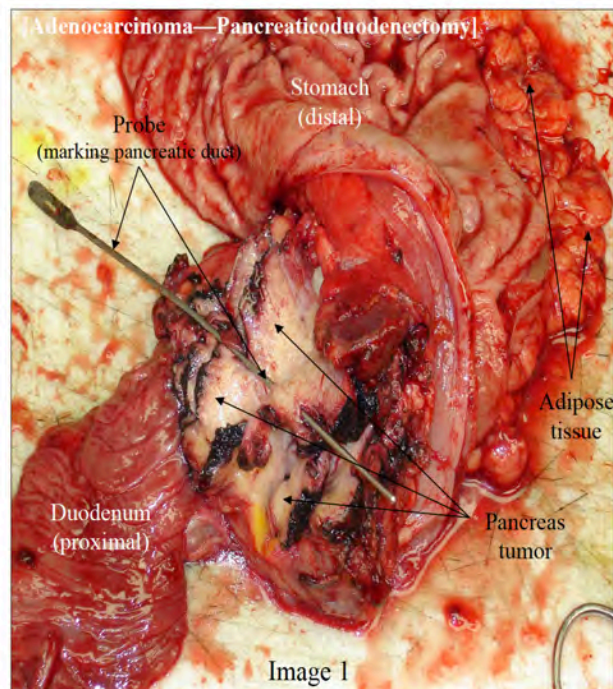
Flashcards, Videos' and Word documents



SOPs examples

CHTN Western Division at VUMC

Collection of Pancreas Tumor and NAT



- Identify the tissue to be collected in the surgical pathology lab. Note that this protocol does *not* apply to the collection of diseased pancreas tissues (e.g. resection for pancreatitis).
- The most significant source of pancreatic tumor seen in the lab will be that from pancreaticoduodenectomies (including the Whipple procedure) for adenocarcinoma of the pancreatic head. See Image 1. Note: Several types of tissue may or may not be resected along with pancreas. In the de



Western Division at
Vanderbilt University Medical Center

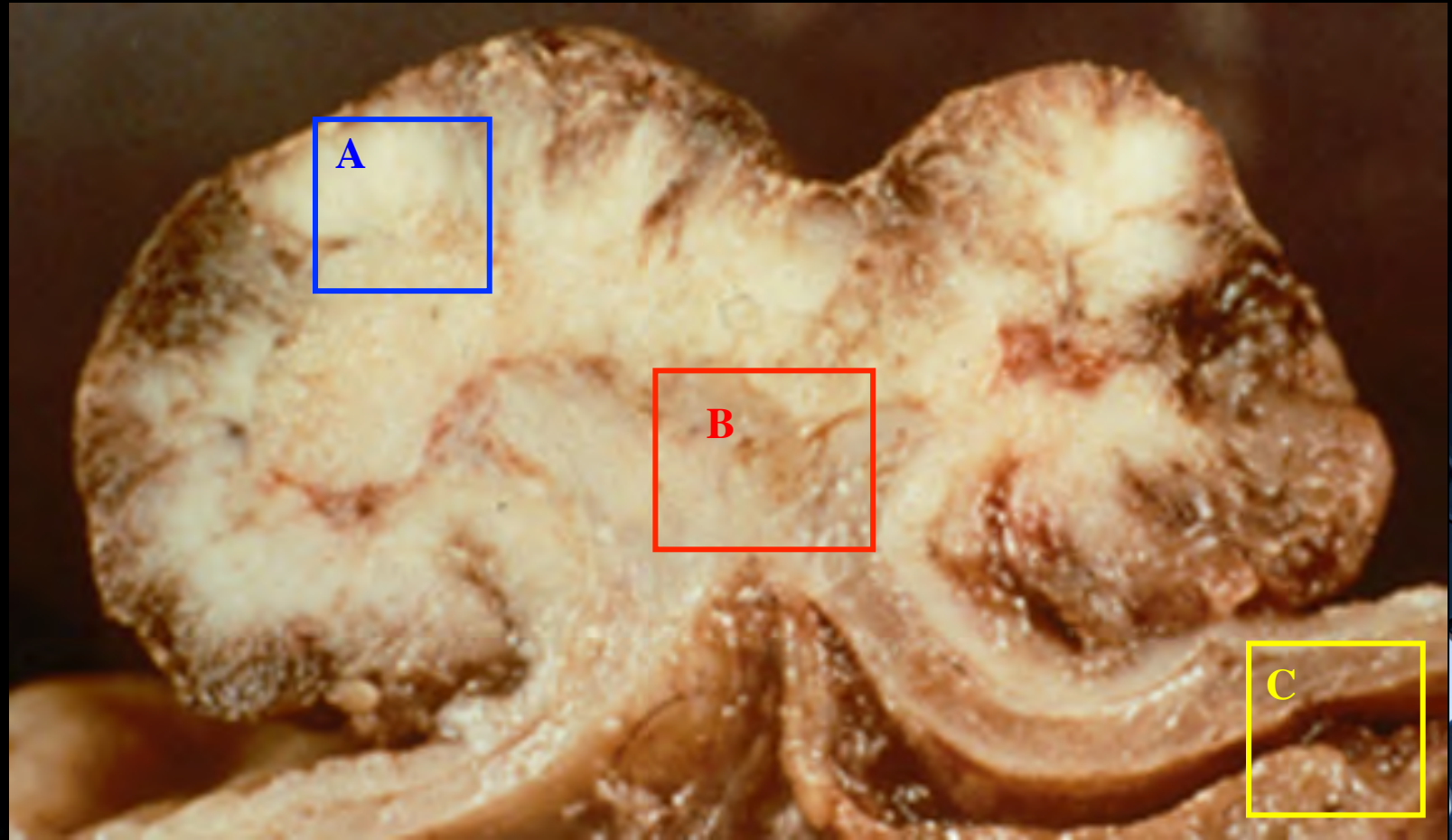
Date Created:	10/12/2002
Date Modified:	01/20/2013
Version #:	Section 7.1.4
Author:	Kerry Wiles
Contributor(s):	
Approved by:	KRW

Section 7.1.4: Tissue Procurement: Snap Freezing Solid Tissues

Background:

Our Biorepository operations are highly successful, because we have staff members that are able to take the knowledge in each area and apply it to their assigned area. Every employee should constantly and consistently, question the SOPs, assist in producing better versions and read journals to help them understand new technologies. For this reason, our operations are structured in such a way that groups areas of activities to staff with similar job duties. For example; tissue procurement and blood processing must follow the same stringent attention to detail and follow a strict policy when handling tissues or blood. Within each specific area, there is approved task-specific SOPs that must be followed to ensure the data/sample collection meets the highest standards.

Technicians trained to not disturb patient diagnostics



QUALITY CONTROL AND ASSURANCE

CHTN GOALS

- Tissues are provided to investigators with pertinent clinicopathologic data obtained from surgical pathology reports and other clinical records
- The histologic slides from the FFPE tissue are examined for tissue content and agreement with associated clinicopathologic data by a board certified anatomic/surgical pathologist



QUALITY CONTROL AND ASSURANCE

QC Data Collected

>Anatomic Site of procured tissue

>Tissue classification:

Malignant

Indeterminate

Pre-invasive neoplasia, Benign

Diseased (non-neoplastic)

Normal (uninvolved)

Normal



(cont.)

- If Malignant-
 - Primary
 - Recurrent
 - Metastatic
 - Uncertain if primary or metastatic
 - If metastatic, site of primary tumor
 - Additional Diagnostic classification
 - Ancillary testing if performed
 - If QC material is consistent with Annotated clinicopathologic data



(cont.)

- If Neoplasm is present in the tissue section, two different assessments of tumor percentage are made:
 - % Cellularity- an estimate of the number of tumor cells in the histologic section relative to the total number of cells
 - % area- an estimate of the area of tissue involved by the tumor

The % area and % cellularity may be discrepant if:

- * The tumor is invested by a large number of inflammatory cells
- * The tumor has a high degree of fibrosis
- * The tumor has large areas of acellular mucin



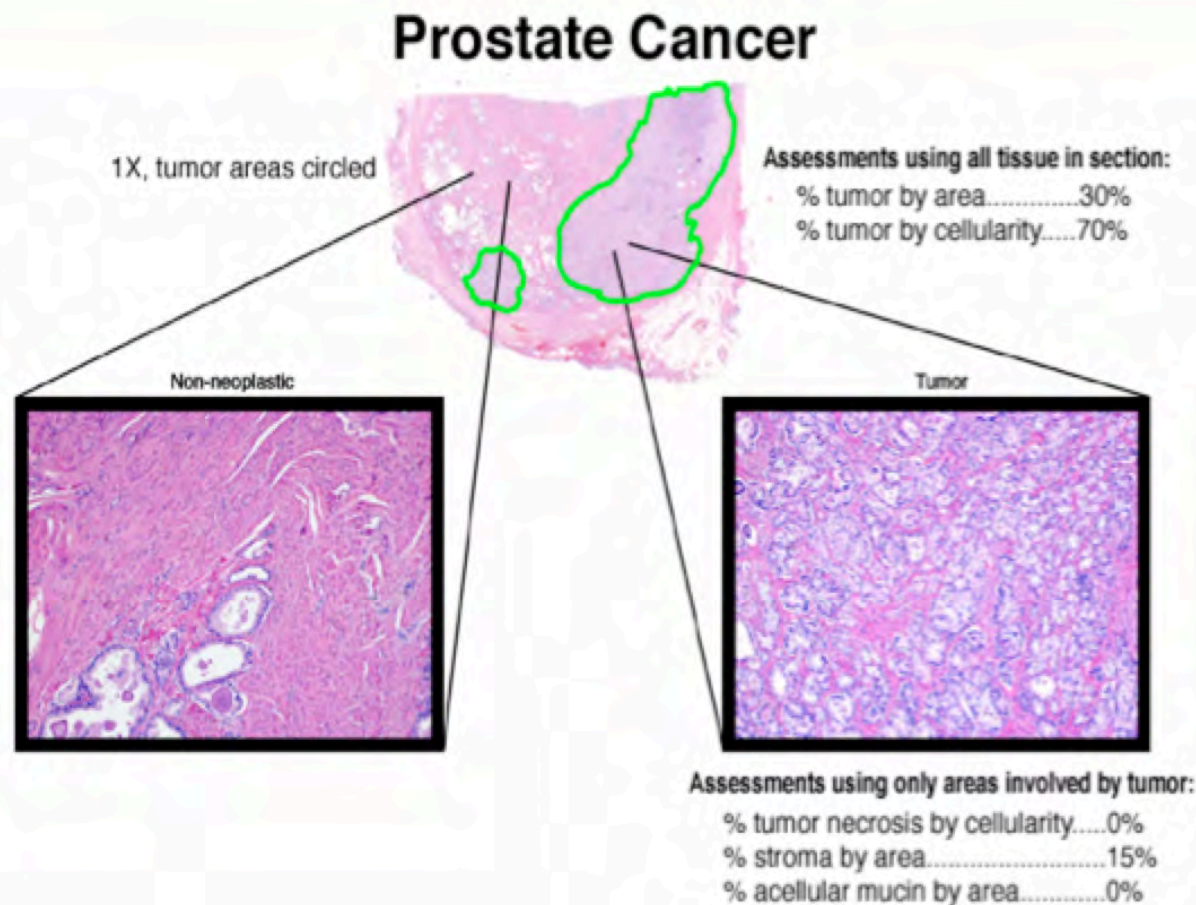
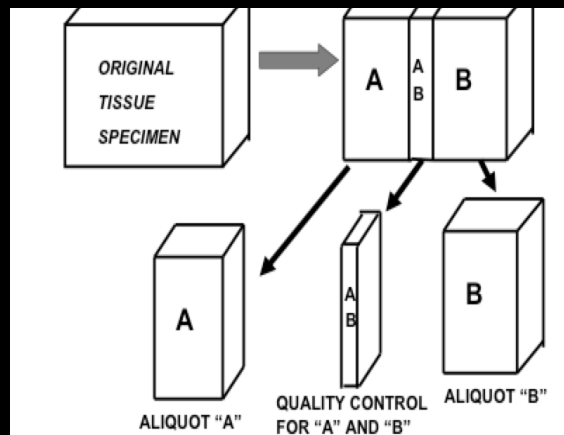
(cont.)

- Tumor attributes that are assessed:
 - % tumor necrosis, by cellularity
 - % non-neoplastic stroma, by area
 - % acellular mucin, by area



QAQC

Example



Cooperative Human Tissue Network
Last update:01/05/07 C. Moskaluk

CHTN-VUMC FINAL PATHOLOGY REPORT

INVESTIGATOR QAQC VIEW BIOFLUIDS

Pathology Report and Specimens for Procedure PROC-37765



ID, Proc, Patient, TR, Barcode	Type	Donor Type	A/S/R	Weight	Prep	Primary	Metastaic	Stage	Grade	Percentages	Procurement Year
WD-23338 PROC-37765 PAT-37302 TR14-0310788905 C114472	NORMAL BLOOD PLASMA	MALIGNANT COLON CARCINOMA \ ADENOCARCINOMA	49/F/B	0.2 ml	Frozen, FZ in -80 freezer	COLON		Stage I	G2 Moderately differentiated		2014
Proc.Start: 733 Proc.End: 811 Collection Time: 652	Draw Time: 652 In lab: 718 In Storage: 815 Picked up: 708		Coll. Position: Supine Coll. Method: Pre-anesthesia Fluid Prep.: Investigator Supplied Protocol Storage Method: Vacutainer-K2EDTA						Fasting: Yes Needle Size: 18		

Comments:

Biofluids- Visually inspected before and after processing.

Data collection:

- >Fasting
- >Draw time
- >Collection position
- >Investigator collection or CHTN SOP
- >Needle gauge
- >Storage method
- >Collection Method (pre-anesthesia, post, after incision, before incision)



CHTN-VUMC FINAL PATHOLOGY REPORT

INVESTIGATOR QAQC VIEW SOLID TISSUES

Pathology Report and Specimens for Procedure PROC-17132



ID, Proc, Patient, TR, Barcode	Type	Donor Type	A/S/R	Weight	Prep	Primary	Metastaic	Stage	Grade	Percentages	Procurement Year
WD-21901 PROC-17132 PAT-13846 TR11-01310785611 413292	MALIGNANT COLON CARCINOMA \ ADENOCARCINOMA		83/M/W	0.79 grams	Frozen, LN2 - vapor phase	COLON	LIVER	Stage IV	G3 Poorly differentiated	10% Necrosis, 65% Lesion, 20% Stroma, 65% Tumor By Area, 90% Cellularity, 0% Acellular Mucin	2011
PET: 0.75 PPET: GPET:	In Surg Path: Organ Removal: Complete Prep:			Cold Ischemia: Warm Ischemia:					Fix Time: PMI Time: Clamp Time:		
Comments:											
WD-21902 PROC-17132 PAT-13846 TR11-01310785611 413293	MALIGNANT COLON CARCINOMA \ ADENOCARCINOMA		83/M/W	0.60 grams	Frozen, LN2 - vapor phase	COLON	LIVER	Stage IV	G3 Poorly differentiated	10% Necrosis, 65% Lesion, 20% Stroma, 65% Tumor By Area, 90% Cellularity, 0% Acellular Mucin	2011
PET: 0.75 PPET: GPET:	In Surg Path: Organ Removal: Complete Prep:			Cold Ischemia: Warm Ischemia:					Fix Time: PMI Time: Clamp Time:		
Comments:											

Combined Pathology Reports by Migration Scripts.

83/M/W

Common Data Elements

<input type="checkbox"/>	Barcode	Anatomic Site ▾	SubSite ▾	Gross Diagnosis ▾	Preparation ▾	Amount	Fluids	QC Status	Assign/Request
<input type="checkbox"/>	C40149	PROSTATE		BENIGN	Frozen, LN2 - vapor phase	0.61 grams	No	Sent to QAQC ▾	▾ ▾
<input type="checkbox"/>	C36468	PROSTATE		BENIGN	Fresh, RPMI	5.74 grams	No	Shipped ▾	Hayward, Simon(Academic ▾ REQ18152 ▾

Specimen Type: MALIGNANT ▾ [Reset Filters](#)

Anatomic Site: PROSTATE ▾

Subsite: ▾

Diagnosis: CARCINOMA \ ADENOCARCINOM/ ▾

Incorrect Gross DX: ☐

Entered By: wilesk (Kerry Wiles) ▾

QC'd By: ▾

QC Date: Nov 6, 2014 

Primary Cancer: ▾

Metastatic Site: ▾

Stage: ▾

Grade: ▾

% Tumor by Area: ▾

% Cellularity: ▾

% Acellular Mucin: ▾

% Necrosis: ▾

% Lesion: ▾

% Stroma: ▾

Comments (max 600 chars)

One disease list and one collection parameters list is shared by all the

Internal Comments (max 600 chars)

ACCESSING THE PATIENT POPULATION



How we access our patient population

Work with “facilitators” which are the surgeon, clinicians and medical staff to inform patients about participation in a research study

Work closely with surgical pathology to obtain “left-over” specimens quickly

Work closely with decedent affairs to identify potential donors

Work closely with the peri-operative and OR teams to ensure collection process is streamlined and does not interrupt normal hospital procedures or standard of care

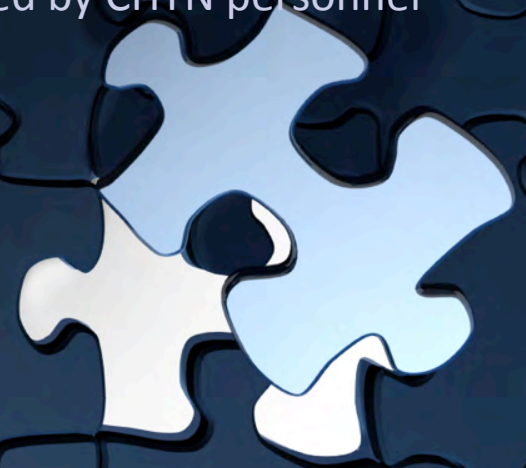
Work closely with and engage our Patient Advocates



Tissues and Donors

Primary, Secondary and Tertiary Access

- Primary-
 - Peri-operative holding areas prior to surgery (biofluids)
 - Surgical Pathology Suites (Solid tissue, Ascites)
- Secondary-
 - Autopsy
 - Clinics (only as part of SOC)
- Subcontracts
 - Local area hospitals trained by CHTN personnel using SOP



CHTN Networking System

How it works...





Networking Module

ANY - Malignant Tissue Request Status

Tissue Request ID: REQ18797 (*primary permission*) | Project ID: PR428 | Request Number: 227, << 227 of 230 >>

Request Status*: **Active** **Active** Status Date*: 07/02/2014

Total Shipment: 89 [Add Shipment Log](#) [Investigator Plus](#) Last Ship Date: 07/02/2014

First Entered By: wilesk on 01/31/2014 Last Updated By: 07/02/2014

Status Comment:

Networked: **NETWORKED on 05/09/2014**
(Click Adjacent Text Area for Editing) **Mid-Western = write; Western = primary;**

Network Comment:

Donor Diagnosis: [Return to Top](#)

Primary Tumor Organ Site: ANY ANY Sub-Site: Any/NOS Any/NOS

Diagnosis Type: Malignant Melanoma Malignant Melanoma Diagnosis to:

Primary Tumor Details:

AJCC Grade: ☐ Grade 1 ☐ Grade 2 ☐ Grade 3 ☐ Grade 4 || ☐

Gleason Score ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 9 || ☐ Any of the Selected

(for Prostatic Adenocarcinoma only):

Stage: ☐ Stage III ☐ Stage III ☐ Stage IV ☐ Stage IV ☐ Any of the Selected Stage

Tissue Requested:

Please Select Tissue Types: ☐ Grossly Uninvolved Tissue ☐ Tumor Interface with Uninvolved

☒ **Primary Tumor:**

ANY - Any/NOS - Malignant Melanoma - Any Malignant SubType

Required: Primary or Met If Available Primary or Met If Available

Prep Info [Edit Prep Remove Tissue & Prep](#)

Prep Type	Required Amount	Size	Fix Time (hrs)	Concentration (%)	Additives	Min. No. of Donor	Preferred No. of Donor	Min No. of Donors Per Ship
FROZEN: LN2 - immersed in liquid	If available	0.3-1.0 grams--				20		
FIXED: Paraffin Block, Formalin 10%	If available	0.3-1.0 grams--				20		

Normal Tissue Request

<https://chtnapps.mis.vanderbilt.edu/investigator/coordinator/networking.js>

Networking Request REQ18797

Networked: ☒ Yes

Network Date: 05/09/2014

Apply the same rules ☐ Investigator (INV287) ☐ Project (PR428)

All Divisions ☐ Read ☐ Write ☐ None

Eastern: ☐ Read ☐ Write ☒ None

Mid-Western: ☐ Read ☒ Write ☐ None

Pediatric: ☐ Read ☐ Write ☒ None

Southern: ☐ Read ☐ Write ☒ None

Mid-Atlantic: ☐ Read ☐ Write ☒ None

[Set Network Status](#) [Close Window](#)

CHTN VUMC DONOR SYSTEM

ELEMENTS OF DESIGN



INTEGRATION WITH HOSPITAL SYSTEMS

- >DQUEST IS OUR IT SOLUTION THAT HOUSES ALL THE PATIENT COLLECTION DATA, CLINICAL/PATHOLOGICAL DATA ASSOCIATED WITH THE COLLECTIONS.
- >LINKED TO THE OR SCHEDULE TO RETREIVE PATIENT DEMOGRAPHICS, TYPE OF SURGERY AND ICDS, ROOM #, TIME, SURGEON, DATA, A/S/R, MR #
- >ALLOWS THE PROCUREMENT TECHS TO MONITOR SURGERIES TO DETERMINE WHEN THE SPECIMENS SHOULD BE RETRIEVED AND TAKEN TO SURGICAL PATHOLOGY



FEATURES

- >CAPTURES AND TRACK CONSENTS AND WITHDRAWALS
- >INTEGRATED WITH THE CHTN INVESTIGATOR TISSUEQUEST SYSTEM
- >ASSIGNS A STATUS TO THE COLLECTIONS
- >ALLOWS PROCUREMENT TEAM TO SCHEDULE PROCUREMENT PLANS FOR THE DAY OR WEEK
- >2 LEVELS OF COLLECTION- PLATNIUM AND GOLD
- >ASSIGNS UNIQUE PATIENT ID'S AND PROCEDURES ID'S SEPARATE FROM THE MR#.
- >QAQC PROCEDURES
- >ASSIGNMENT OF "UNUSED SPECIMENS" AND SEARCH CAPABILITIES
- >SHIPPING AND INVOICING
- >METRICS AND REPORTING
- >DONOR PORTAL FOR INVESTIGATORS



CONSENT DECISION AT OR LEVEL

Search Data Entry Quality Control Matching Shipping SOPs Error Reporting Admin Logout: wilesk

Medical Record Number: Patient's Last Name:

Doctor's Last Name: Surgery Date:

Filter([show](#) | [hide](#))

Search Results: 242

Consent Type	Service	Time	Room	Surgeon	Patient Name	MR#	A	S	R	Date
<input type="text"/>	ANESTHESIOLOGY	11:00	VCH3 RM 04				15	F	W	
<ul style="list-style-type: none"> Fluids+Consent Migration_Category2 Migration_Fluids Migration_Tissues Tissue+Consent Tissue+Fluids+Consent Tissue/Waive Consent 	INJECTION, ANESTHETIC AGENT; LUMBAR/THORACIC (PARA[DX=337.2]; NO LATERALITY FLUOROSCOPIC GUIDE & LOCALIZATION, NEEDLE/CATHETER									
	BURN	10:00	VOR3 RM 24	Bueno, R			25	M	W	
	SKIN GRAFT; SPLIT THICKNESS (15101)[SITE=LEG]; RIGHT SKIN GRAFT; SPLIT THICKNESS (15100)[SITE=THIGH]; RIGHT SURGICAL PREP OF WOUND BED									
	BURN	11:30	MCE3 RM 07				45	F	W	

CONSENT DECISION DETERMINES HOW THE SPECIMEN WILL BE TREATED:
LINKED, BUT CODED= CONSENT
ANONYMIZED WITH CODE=WAIVER OF CONSENT



DECISIONS→SCHEDULED COLLECTIONS

Results: 1 Filter([show](#) | [hide](#)) [Export](#)

Patient ▲	Date ⇅	Time ⇅	Location ⇅	Surgeon ⇅	Service ⇅	Status ⇅	Decision ⇅
83 Female White [REDACTED]	[REDACTED]	11:00 AM	VOR3 RM 04	[REDACTED]	GENERAL ONCOLOGY SURGERY	S	Tissue+Fluids+Consent
NO LATERALITY UNLISTED PROC, PANCREAS[DX=158.0 Malignant neoplasm of retroperitoneum and peritoneum Retroperitoneum COMMENT=Comment: lap bx abd mass]							
INVESTIGATOR DONOR PORTAL and Tissue Collection Notes: Add/Edit							
8cm spindle cell sarcoma. c/r=n/n.							
No Tissue: <input type="text"/> No Fluid: <input type="text"/>							
DO NOT COLLECT FOR [REDACTED] Procedure Update Interested Investigators Consent Procurement Plan Procedure Details Collect Tissue Collect Fluid Patient History Complete							

[Navigation Buttons]



LIMITED PATIENT HISTORY OBTAINED

ENTERED INTO DQUEST

Enter Patient History for [REDACTED]

Patient Basic History Medication History Prior Surgical Procedures Family History Preventative/Significant Procedures Pre-op Evaluation Therapy History

Patient: [REDACTED] 3) Procedure: [REDACTED]

Height: [] inches Weight: [] lbs BMI: []

Smoking History: [] Duration: [] NSAIDS History: []

ETOH History: [] Duration: [] Steroids History: []

Illicit Drug Use: [] Duration: []

Recreational Drug Type:

- Cocaine
- Codeine
- Ecstasy
- IV Narcotics
- Marijuana

Patient Non- Neoplastic History:

- Diabetes Type I
- Diabetes Type II
- Gestational Diabetes
- Hypertension
- Obesity

Patient Cancer History:

- Breast
- CNS (Brain/Spinal Cord)
- Endocrine, Adrenal
- Endocrine, Pituitary
- Endocrine, Thyroid

Chemo and Chemo Comments (max 1000 chars):

- No
- Unknown
- Yes
- Yes for different disease
- Yes for prior presentation of this disease

Radiation and Radiation Comments (max 1000 chars):

- No
- Unknown
- Yes
- Yes for different disease
- Yes for prior presentation of this disease

Save Reset Close

Collection Biofluids

Consent
Procurement Plan
Procedure Details
Patient History

Accession #:
TR #:

Collection Type:
Level:

Fasting: ☒
Proc. Start:
Proc. End:
Needle Gauge/Size:
Collection Time:

Draw Time:
In Lab:
In Storage:
Picked Up:

Collection Position:
Collection Method:
Fluid Preparation:
Storage Method:
Box #:
Position:

Type:
Post Coll. Time:

1 [Add More](#)

Default Consent:

Barcode/GPET/Desc	Gross DX/Site/Subsite	Amount	Prep/Storage	Rack:	Box:	Loc:	FIX:	PET:	PMI:	Assigned/REQ	Status/Consent
* B00658 8cm Spindle Cel	NORMAL BLOOD PLASMA	0.5 ml	Frozen, FZ in -80 fre Bambi	BambiS:	RR0007	E9		2.2			Sent to QAQC Pending - Donat

[Edit Tissues](#)
[Edit Fluids](#)

Filter([show](#) | [hide](#))

Id	Barcode	Ana. Site	Subsite	Gross DX	Desc	Request Id	Amount	Location	Status	Type	Prep	Actions
2014-104525	B00658	BLOOD	PLASMA	NORMAL	8cm Spindle Cell Carcinoma		0.5 ml	Bambi BambiS2R1D2 RR0007 E9	Sent to QAQC	Fluid	Frozen, FZ in -80 freezer	Edit Delete
					8cm Spindle			Bambi			Frozen, FZ	

Biofluids have one level of collection- Platinum

Biospecimen Moves to QAQC

Each biospecimen has a status associated with the movement through DQuest

3)

Pathology Report

Patient History

Procurement Plan

<input checked="" type="checkbox"/>	Barcode	Anatomic Site ▾	SubSite ▾	Gross Diagnosis ▾	Preparation	Amount	Fluids	QC Status	Assign/Request
<input checked="" type="checkbox"/>	C443929	LIVER		Tumor	Frozen, LN2 - vapor phase	2.3 grams	No	QC Complete ▾	<div><div></div><div>cader ▾</div></div> <div>REQ12828 ▾</div>

Reset Filters

Specimen Type: MALIGNANT ▾

Anatomic Site: LIVER ▾

Subsite: ▾

Diagnosis: CARCINOMA \ ADENOCARCINOM/ ▾

QCed by:

QC Date: May 20, 2013

Primary Cancer: COLON ▾

Metastatic Site: LIVER ▾

Stage: Stage IV ▾

Grade: G2 Moderately differentiate ▾

% Tumor by Area: 100

% Cellularity: 10

% Acellular Mucin:

% Necrosis:

% Lesion: 90

% Stroma: 10

Comments (max 600 chars)

Internal Comments (max 600 chars)

Save

Reset

Return to the 'Enter Solid Tissue QAQC' screen.

Investigator notification and order scheduling

Invoice (I-2648) for [REDACTED] n
Total: \$50

Secondary checker ensures accuracy of shipment → [Mark as Secondary Checked Shipment History Doc](#)

[View Quote](#) [View Order](#) [Email](#)

Email:
Institution:
Path.Report Sent:

Priority:
Contact:
Chart Sent:

Shipping Date:
PO:

Billing Address(max 200 chars):

Shipping Address(max 200 chars):

Reagent Comments(max 250 chars):

Chart Reviews Requested (show | hide)

Accession #	
TR11-88856	<input type="checkbox"/>

Specimens (show | hide)

Assign Packing Slip:
Assign Request Id:
Select by Preparation: [Remove Selected](#) [Generate Ship Logs](#)

<input type="checkbox"/>	Quote Id	Tissue ID	Bar Code	Packing Slip	Accession #	Specimen	MR #	Cost	Request	Action
<input checked="" type="checkbox"/>	1	WD-12366	C443929	I-2648-1	TR11-88856	S2013-48121 MALIGNANT LIVER CARCINOMA \ ADENOCARCINOMA 35/M/W 2.3 grams Frozen, LN2 - vapor phase	027875673	50.00	REQ12828	Replace

[Save](#) [Mark as Shipped](#) [Email Details](#)

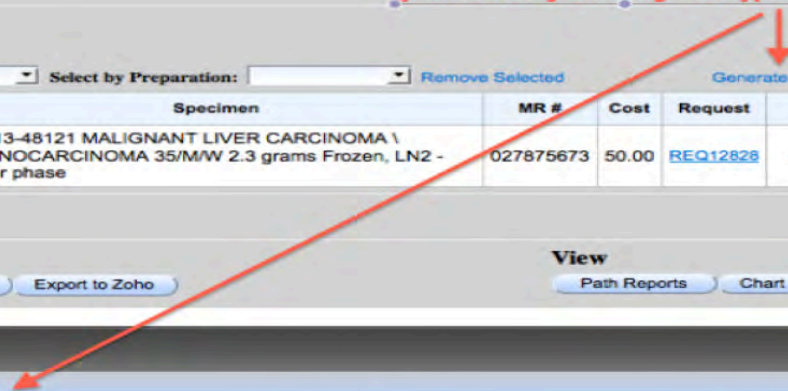
Print [Mapping List](#) [Labels](#) [Invoice](#) [Packing Slips](#) [Export to Zoho](#) **View** [Path Reports](#) [Chart Reviews](#)

All Ship Logs

#	Ship Log Comment	Preparation	Specimen Type	Ship Date	Request Id
1	Generated by Western for Invoice: I-2648	Frozen, LN2 - vapor phase	MALIGNANT LIVER CARCINOMA \ ADENOCARCINOMA		REQ12828

[Save Entries](#)

The specimens are marked as shipped and the ship log is generated by clicking the hyperlink.



You have to be able to find what you



Slides and blocks are stored in cabinets by Surgical Accession #, Year and Service collected from (satellite sites)

You have to be able to find what you



REQUIREMENTS AND GUIDELINES TO SETTING UP YOUR BIOREPOSITORY



You should have a TQM or QMS set up

CHTN VUMC TQM

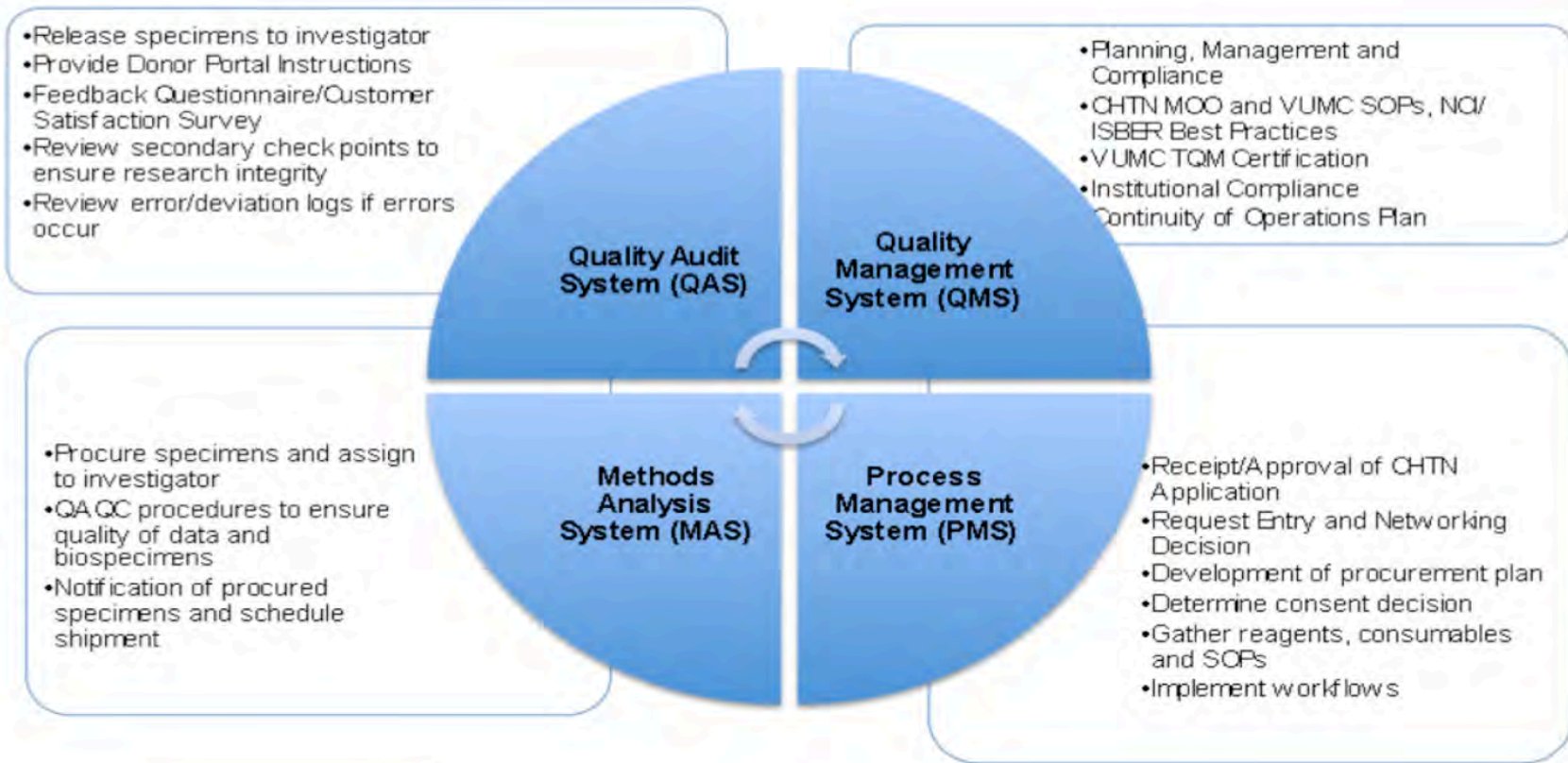
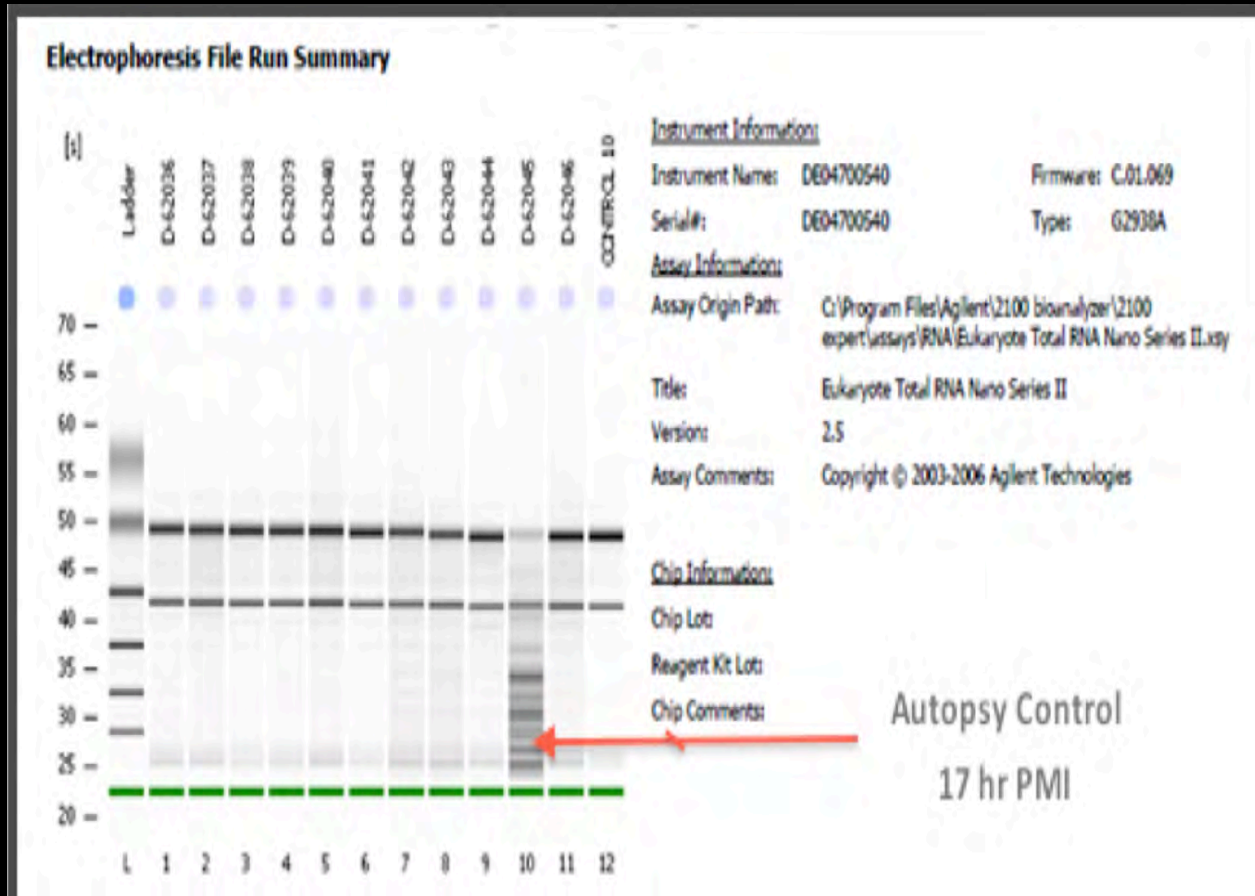
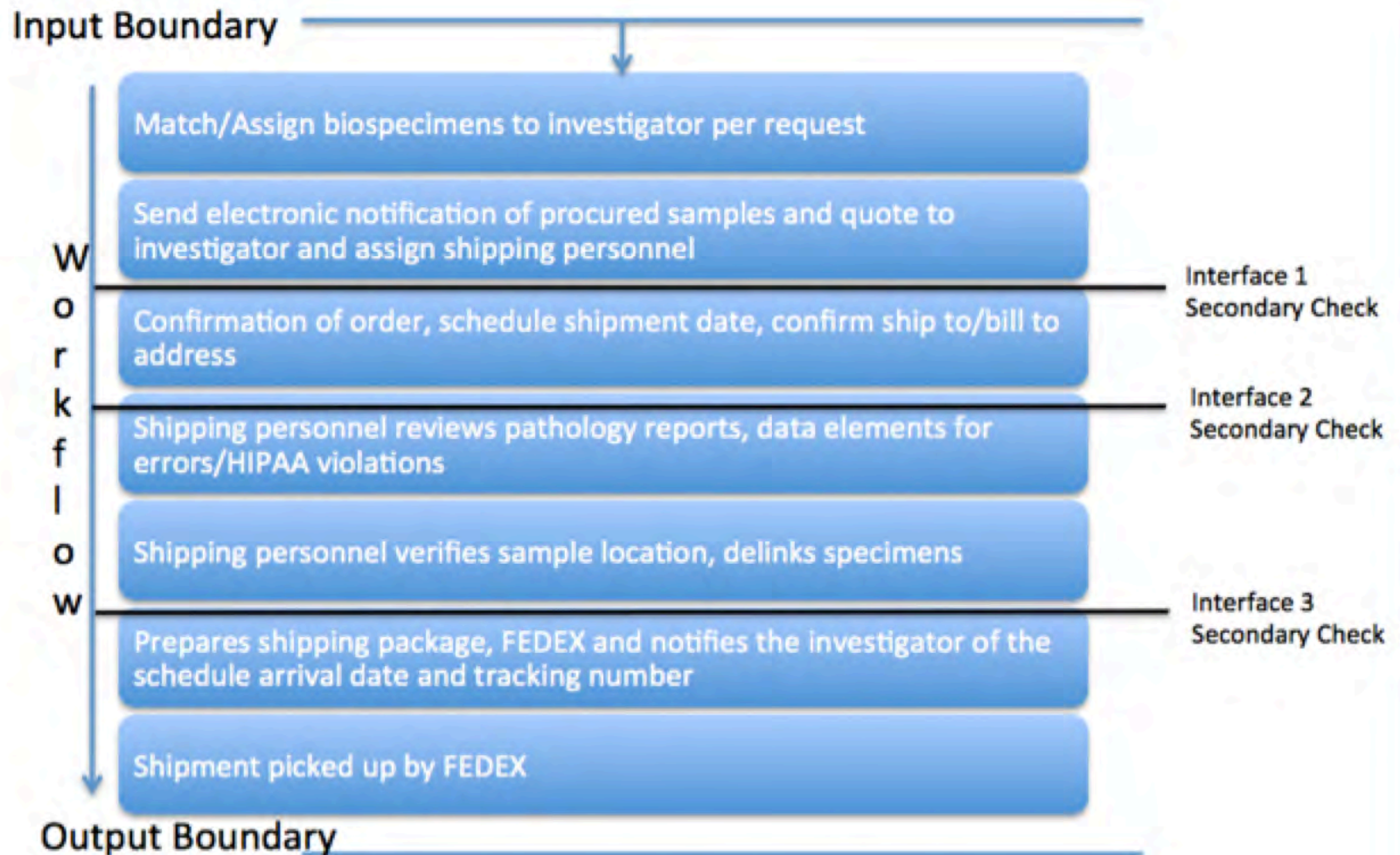


FIGURE C1: CHTN-VUMC TQM Diagram.

You should have a way to assess quality



WORKFLOW AND SECONDARY CHECKING



Example 1 Shipping input/output boundary and workflow

Key Performance Indicators

Key Performance Indicators

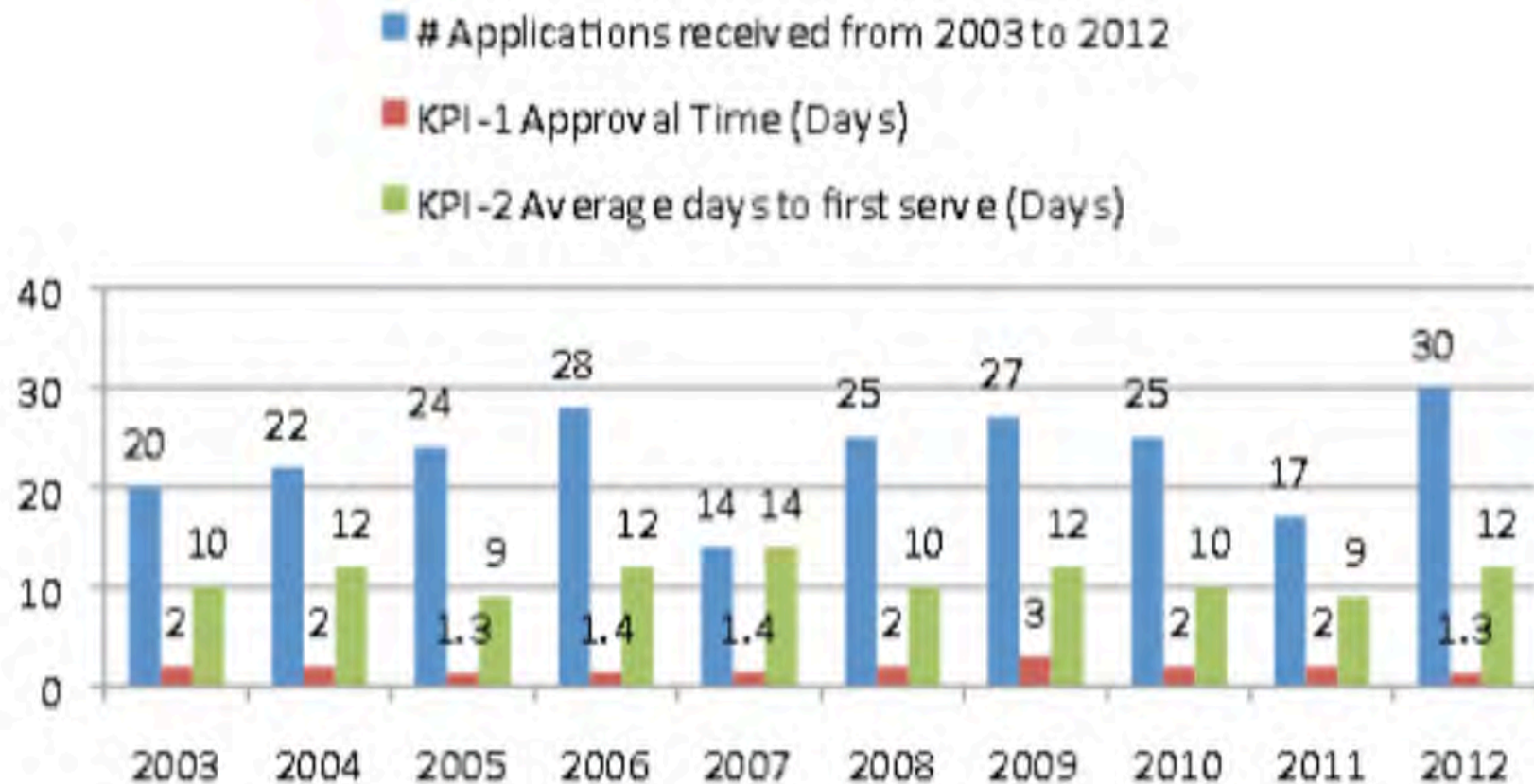
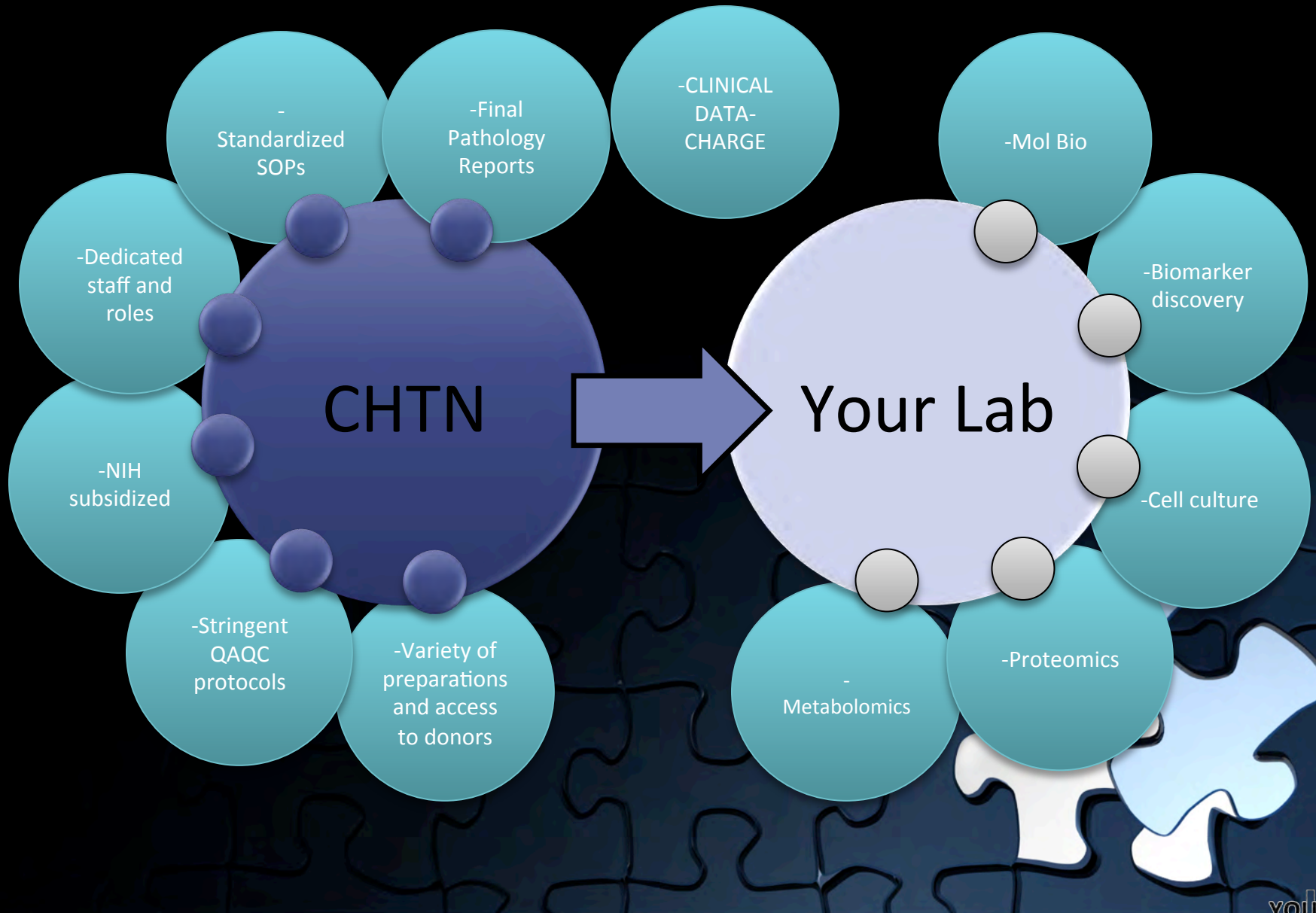


FIGURE C2: CHTN Application and first serve KPI graph.

Why use CHTN?



Want to become a CHTN investigator?

Just apply....



How to become a CHTN investigator

Apply

->

Approve

->

Get tissues!



- Application can be found on website
 - Requires IRB/Ethics review OR
 - For Commercial/ Biotech firms, HAS
 - Signed Use Agreements
 - Payment terms
- Project proposal is reviewed to determine scientific merit
 - Application not missing elements
 - Requests are reasonable
- Approved within 1-2 days of receiving completed application
 - **If Denied, the investigator will be supplied with information**



SOCIETIES AND OTHER RESOURCES



Biobanking/Biorepository Societies

ISBER- International Society Biological & Environmental
Repositories

ESBB- European chapter of ISBER

BBRB-Biorepositories and Biospecimen Research Branch

CDP- Cancer Diagnosis Program

NCI Best Practices



Accreditation -US

CAP- College of American Pathologist



A great staff

Thanks to a great staff...

Invoicing/Receivables- Kiley Wease AAll***

Consent- Grace Ordnung-Lead***

Alle Crider**

Procurement- Erik Brooks-Lead ****

Kelsey Shaffer **

Haleigh Nelson

Mike Kiesiel

Fluids Processing- Stephanie Shelton-Lead ****

Grace Ordnung- Back up

Linda Sircy- Back up

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Stephanie Shelton-Back up

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Shipping- Linda Sircy-Lead****

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Questions?

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