

GCC: The Promise of Collaboration

BioRepository Alliance of Georgia-Oncology

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MCG

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Georgia As A Research Laboratory

- State-wide tumor tissue & serum bank
- Biorepository Alliance of Georgia (BRAG-onc)
- Hub at MCG
- Multiple satellites
- Highly annotated with clinical data
- IT: Tumor registry → Database



Mission Statement

- The goal of the Biorepository Alliance of Georgia-Oncology Program (BRAG-onc) is to establish a state-wide process for the banking of tumor tissue and serum samples from a population that reflects the ethnic and cultural diversity of the state to support basic, translational, and clinical research. This process is a critical companion for the state-wide clinical trials network (GA-CORE)

National Cancer Institute

Providing Your Tissue for Research: What You Need To Know



U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES
National Institutes
of Health

High Volume Oncology Care in Georgia (>500 cases, 2001 registry)

City	Institution	# of Cases
Albany	Phoebe Putney Memorial Hospital	1100
Athens	Athens Regional Medical Center	800
Atlanta	Northside Hospital	2900
Atlanta	Piedmont Hospital	1623
Atlanta	Winship Cancer Institute	2282
Augusta	Medical College of Georgia	670
Augusta	University Hospital	950
Marietta	WellStar Health System	2307
Brunswick	Southeast Georgia Health System	603
Carrollton	Tanner Health System	500
Columbus	The Medical Center	590
Dalton	Hamilton Medical Center	500
Decatur	DeKalb Medical Center	1358
Gainsville	Northeast Georgia Health System	1004
Macon	Medical Center of Central Georgia	1100
Riverdale	Southern Regional Health System	802
Savannah	Memorial Health University Medical Center	1010
Savannah	St. Joseph's-Candler Health System	1200

Biorepository Alliance of Georgia

health

CHATTANOOGA DALTON

ROMNEY



Medical College of Georgia
GEORGIA'S HEALTH SCIENCES UNIVERSITY

DeKalb
Medical Center



COLU

PHOEBE PUTNEY
MEMORIAL HOSPITAL

ANNAH

Memorial
HEALTH
University Medical Center

ST. Joseph's Candler

WICK

WICK

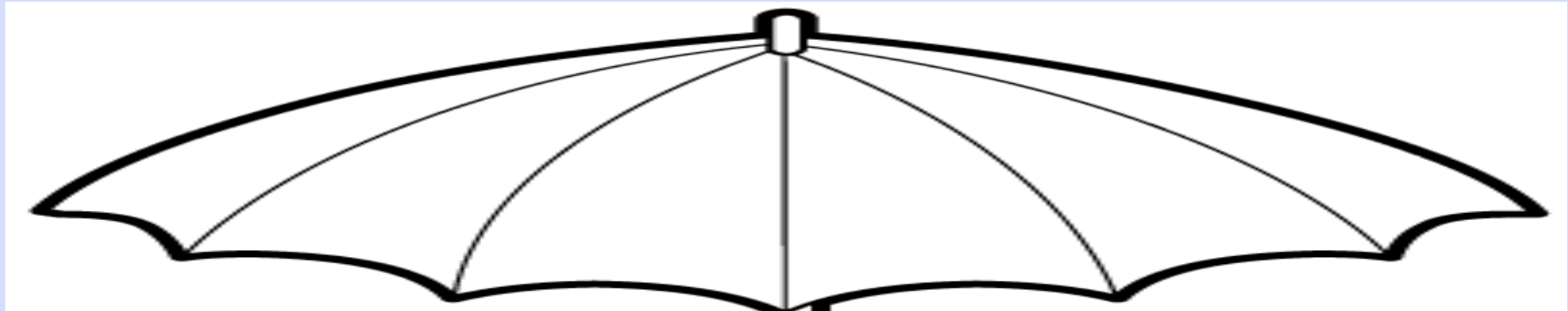




Medical College of Georgia

GEORGIA'S HEALTH SCIENCES UNIVERSITY

**2005 Tumor
Registry:
778**



**2005 Tumor
Registry:
1235**



**2005 Tumor
Registry:
541**



**2005 Tumor
Registry:
1138**



**2001 Tumor
Registry:
1085**



**2005 Tumor
Registry:
636**



**2001 Tumor
Registry:
1235**

Total Cases: 6648

Active Sites

- Medical College of Georgia
- DeKalb Hospital
- Hamilton Health System
- St. Joseph/Candler
- Phoebe Putney Memorial Hospital

New Sites in Progress

- Piedmont Hospital
- Wellstar Hospital
- University Hospital (Augusta)
- St. Joseph Hospital (Atlanta)
- Amos Cancer Center (Columbus)

Governance

- Support from Georgia Cancer Coalition
- Companion project with GA-CORE (state-wide clinical trials network)
- External Advisory Board
- Steering Committee
- Local board for the individual institutions
- Director: Judith Giri, PhD

How to Give Tissues for Research

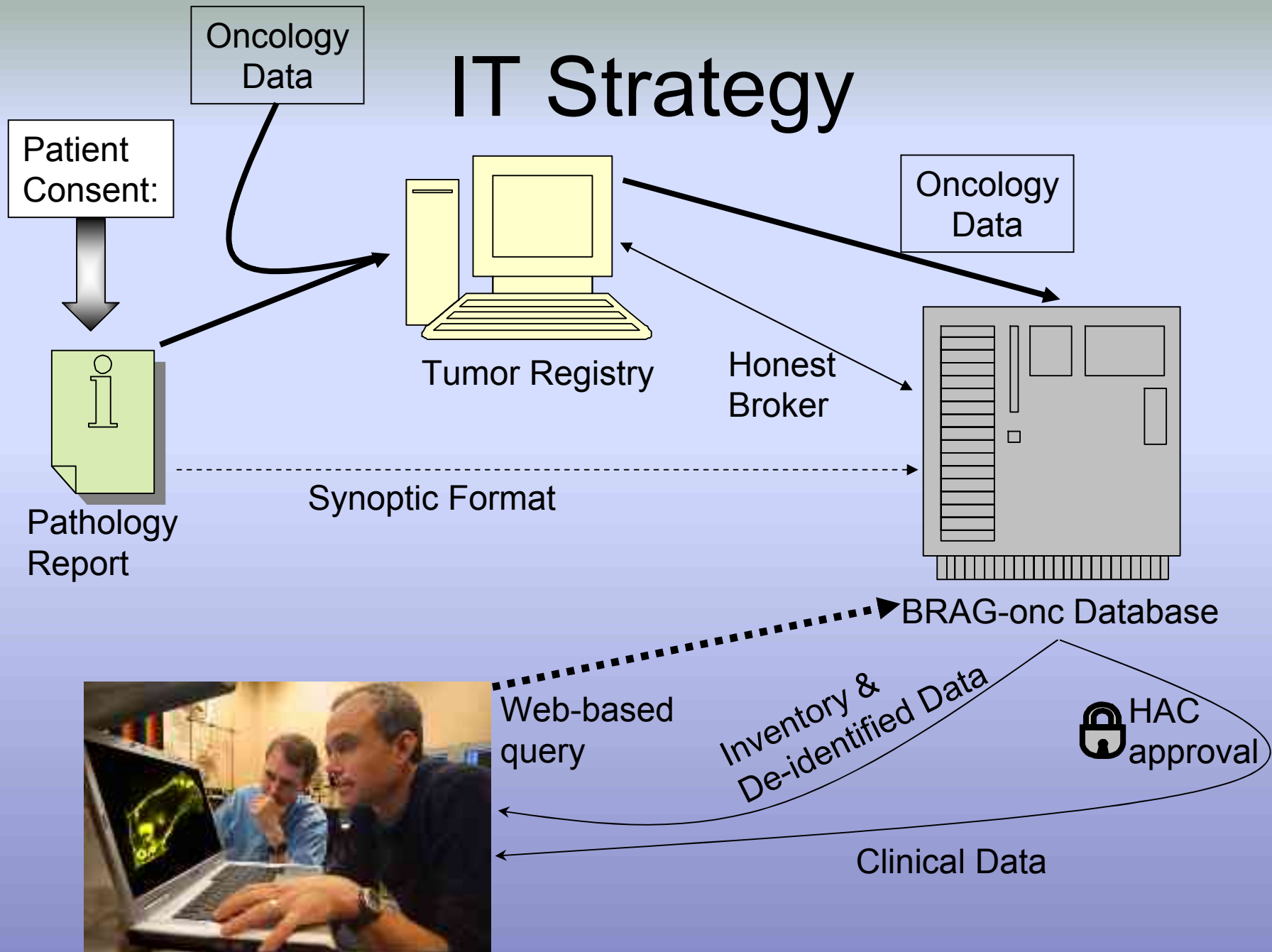
- Options discussed with patients prior to surgery
- Blanket informed consent
- Patient may decline venipuncture, genetic analysis, allocation to commercial entity
- Much of the tissue removed at surgery is not required for diagnosis and is discarded
- Donation does not change any aspect of treatment (including surgery)

How to Give Tissues for Research

The team:

- Clinical research nurse
- Surgeon and staff
- Pathologist and staff
- Tissue bank personnel

IT Strategy



Biorepository Activities & Features

- Patient consent
- Procurement functions
- Appropriate inventory
- Clinical database
- Annotation: synoptic pathology reports, tumor registry, standardized medical terminology (SNOMED)
- Framework for informatics: TissueMetrix
- Tissues available with HAC exemption

Compliance & Safeguards

- Informed consent process
- Identity protected (HIPPA protected PHI)
- Tumor registry data pre-filtered for oncology relevance
- Patient can change mind
- Pathologist selects tissues not required for diagnosis and staging
- No further contact
- Database audit trail

Typical Tumor Registry Data

- Demographics
- History
- Tumor information
- Cancer ID
- Staging procedures
- Stage (clin & path)
- Tumor Markers
- Clin history/exposure
- Clinical dx workup
- General
- Surgery
- Radiation Rx
- Chemotherapy
- Complications
- Hormone Rx
- Immunotherapy
- Case status
- Referrals

Procurement Protocol

- Immediate procurement rapidly following removal
- Samples assigned a unique tumor bank number for accessioning into the tumor bank inventory database
- QC: slides are prepared to determine tumor content, etc. (blocks in molecular friendly fixative may be used for DNA, RNA, proteomics)

TissueMetrix Main Page

Main Menu

User: J. Miller, MD, PhD, Professor
[Arabic text]



Inventory Summary



Database Queries



Get Sample Information



Register Samples



Remove from Inventory



Place in Inventory



Move Samples



Discard Samples



Dispense Samples



Create Culture on Kits



Dilute Aliquot Samples



Security Settings



System Configuration

Donor Sample List

Properties	Custom	Sharing	Events	Consents	Samples	Attachments				
Sample No.	Storage Address	Ref. Number	Sample Type	Prep	Site of Primary	Status	Inventory Status	Age	Qty On Hand	
0007401-01	MOGR02-R-1-B02-353	07-0259	SERUM	FF	ERST	Available	n	50 yrs	0.5 ml	
0007401-01-01	MOGR02-R-1-B02-301	07-0259	SERUM	I	ERST	Available	n	50 yrs	0.5 ml	
0007401-01-02	MOGR02-R-1-B02-302	07-0259	SERUM	FF	ERST	Available	ii	50 yrs	0.5 ml	
0007401-01-03	MOGR02-R-1-B02-303	07-0259	SERUM	FF	ERST	Available	ii	50 yrs	0.5 ml	
0007401-01-04	MOGR02-R-1-B02-304	07-0259	SERUM	FF	ERST	Available	n	50 yrs	0.5 ml	
0007401-01-05	MOGR02-R-1-B02-305	07-0259	SERUM	I	ERST	Available	n	50 yrs	0.5 ml	
0007401-01-06	MOGR02-R-1-B02-306	07-0259	PLASMA	FF	ERST	Available	ii	50 yrs	0.5 ml	
0007401-01-07	MOGR02-R-1-B02-307	07-0259	PLASMA	FF	ERST	Available	ii	50 yrs	0.5 ml	
0007401-01-08	MOGR02-R-1-B02-308	07-0259	PLASMA	FF	ERST	Available	n	50 yrs	0.5 ml	
0007401-01-09	MOGR02-R-1-B02-309	07-0259	PLASMA	I	ERST	Available	n	50 yrs	0.5 ml	
0007401-01-10	MOGR02-R-1-B02-310	07-0259	PLASMA	I	ERST	Available	n	50 yrs	0.5 ml	
0007401-01-11	MOGR02-R-1-B02-311	07-0259	PLASMA	FF	ERST	Available	ii	50 yrs	0.5 ml	
0007401-08	MOGR02-R-1-B02-312	07-0259	BUFFY COAT	FF	ERST	Available	n	50 yrs	0.25 ml	
0007401-101	MOGR02-R-1-B02-313	07-0259	BUFFY COAT	FF	ERST	Available	n	50 yrs	0.25 ml	
0007401-10	MOGR02-R-1-B02-314	07-0259	TISSUE-TUMOR	UL-1X	ERST	Available	n	50 yrs		
0007401-11	MOGR02-R-1-B02-315	07-0259	TISSUE-TUMOR	FF	ERST	Available	ii	50 yrs		
0007401-12	MOGR02-R-1-B02-316	07-0259	TISSUE-TUMOR	FF	ERST	Available	n	50 yrs		
0007401-13	MOGR02-R-1-B02-317	07-0259	TISSUE-TUMOR	FF	ERST	Available	n	50 yrs		
0007401-14	MOGR02-R-1-B02-318	07-0259	TISSUE-TUMOR	UL-1X	ERST	Available	n	50 yrs		
0007401-15	MOGR02-R-1-B02-319	07-0259	TISSUE-TUMOR	FF	ERST	Available	ii	50 yrs		
0007401-16	MOGR02-R-1-B02-320	07-0259	TISSUE-TUMOR	FF	ERST	Available	ii	50 yrs		
0007401-17	MOGR02-R-1-B02-321	07-0259	TISSUE-TUMOR	FF	ERST	Available	n	50 yrs		
0007401-18	MOGR02-R-1-B02-322	07-0259	TISSUE-TUMOR	UL-1X	ERST	Available	n	50 yrs		
0007401-19	MOGR02-R-1-B02-323	07-0259	TISSUE-NORMAL	FF	ERST	Available	n	50 yrs		
0007401-20	MOGR02-R-1-B02-324	07-0259	TISSUE-NORMAL	FF	ERST	Available	ii	50 yrs		
0007401-21	MOGR02-R-1-B02-325	07-0259	TISSUE-NORMAL	FF	ERST	Available	n	50 yrs		
0007401-22	MOGR02-R-1-B02-326	07-0259	TISSUE-NORMAL	I	ERST	Available	n	50 yrs		
0007401-23	MOGR02-R-1-B02-327	07-0259	TISSUE-NORMAL	I	ERST	Available	n	50 yrs		
0007401-24	MOGR02-R-1-B02-328	07-0259	TISSUE-NORMAL	FF	ERST	Available	ii	50 yrs		
0007401-25	MOGR02-R-1-B02-329	07-0259	TISSUE-NORMAL	FF	ERST	Available	n	50 yrs		

List of Clinical Forms in TissueMatrix

1. Pathology
2. Surgery
3. Patient History
4. Family History
5. Radiotherapy
6. Systemic Therapy
7. Outcome
8. Toxicity (SAE, clinical trials)

Event Properties with Anatomical Location Dictionary

The image shows two overlapping browser windows. The left window is titled 'Edit Donor Event Properties' and contains a form with several fields. The right window is titled 'Dictionary Look...' and displays a list of anatomical locations with radio buttons for selection.

Edit Donor Event Properties

Generated: 05.07.2008 42 rows returned

Buttons: Ok, Cancel

Anatomic Location

- ANAL Anal
- ELAD Ear/Ear
- EOXE Sarcomas of bone
- ERST Breast
- CERV Cervical
- CNS Central Nervous System: Brain and Peripheral NS
- COLJ Colorectal
- ENDO Endocrine: Parathyroid, Adrenal, Thyroid
- ESOP Esophagus
- GAST Gastric
- HEPT Hepatic, Biliary Tree
- INTS Small intestine
- LUNG Lung
- LRHX Head and Neck - Larynx and Hypopharynx
- MELA Melanoma
- MESO Mesothelium
- NASL Head and Neck - Nasal Cavity, Sinuses, Nasopharynx, Oral Cavity, Oropharynx

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Form Fields:

- Properties** (selected tab)
- Donor** (tab)
- Samples** (tab)
- Custom** (tab)
- Attachments** (tab)
- Presentation** (dropdown)
- Event Name:** NEW
- Event Date:** 05/05/2008 *Con/Status:*
- Site of Primary:** (empty)
- Site(s) of Disease:** COLJ
- Clinical Trial:**
 - Trial Name:** (empty)
 - Trial Sponsor:** (empty)
- Comments:** Procedure Performed: Right Limb amputation
- Edit Status:** Open For Edit
- File Status:** (empty)
- Buttons:** Save, Revert, Close
- Date:** (empty)

Pathology Form: Colorectal

DX03 - Histology - Colorectal

Donor Demographics		Event Information	
Donor Name	jetson George	Event Name	NEW
Donor Number	000E	Event Date	07/28/2008 (mm/dd/yyyy)

GENERAL INFO		EXTENT OF DISEASE		STAGING	
Pathology Number:	SP-06-225632	Lymphatic Invasion:	Y MIN	Pathological T:	T2
Assoc. Tissue Banked:	YES	Vascular Invasion:	NO	Pathological N:	N0
Date of Procedure:	07/20/2008 (mm/dd/yyyy)	Perineural Invasion:	NO	M:	
Date of Diagnosis:		Perirectal Invasion:	NO		
Type of Procedure:	RESECT	Extramural Blood Vessel Inv:	NO		
Samples for Diagnosis:	PRIM LOCAL	Extracaps. Nodal Hitz Perforation:	NO		
		Peritoneal Seeding:	NO		
		Margins:	NOTIMV		

TUMOR CHARACTERISTICS	
Site of Primary:	01
Synch. Primary Tumours:	NO
Tumour Size:	2 (cm)
Histology:	02
Grade/Type:	II

QA Form

Edit Sample Properties

Properties

Custom

QA

Sharing

Related Samples

Donor

Requisitions

Attachments

Field Name	Value
% Necrosis	<input type="text" value="0"/>
% Normal Tissue	<input type="text" value="0"/>
% Tumor	<input type="text" value="100"/>
Aliquots Represented	<input type="text" value="00034-01-05.(01-03)"/>
Collection Site (Site of Origin)	<input type="text" value="COLN"/>
Presumed Tissue Type	<input type="text" value="Adenocarcinoma"/>

Add

Delete

Distribution of Banked Samples

- Available to scientists in Georgia
- Advisory Board: tissue review sub-committee
- Application form: describe research needs
- HAC approved study: exempt; expedited
- Approval by tissue committee and HAC: specimens to researcher

What's On The Horizon?

- Increase procurement from current sites
- Addition of new sites/programs
- FY08 budget request for 5 new sites
- Database implementation
- Fueling research discoveries in Georgia