

2013 Scientific Advisory Committee Meeting  
Courtyard Marriott, Richland, WA  
September 6 - 7, 2013

# National Human Radiobiological Tissue Repository

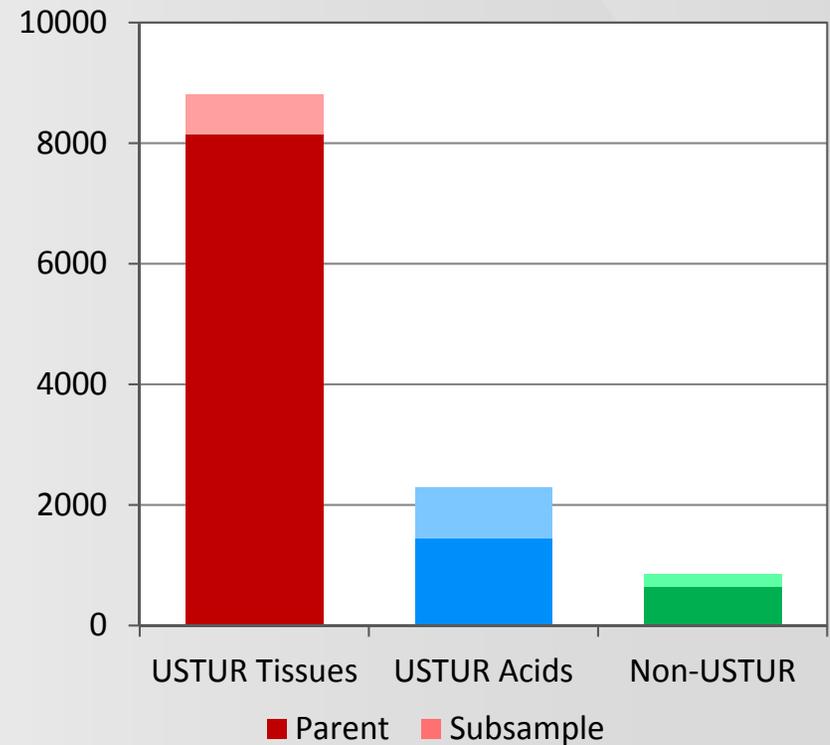
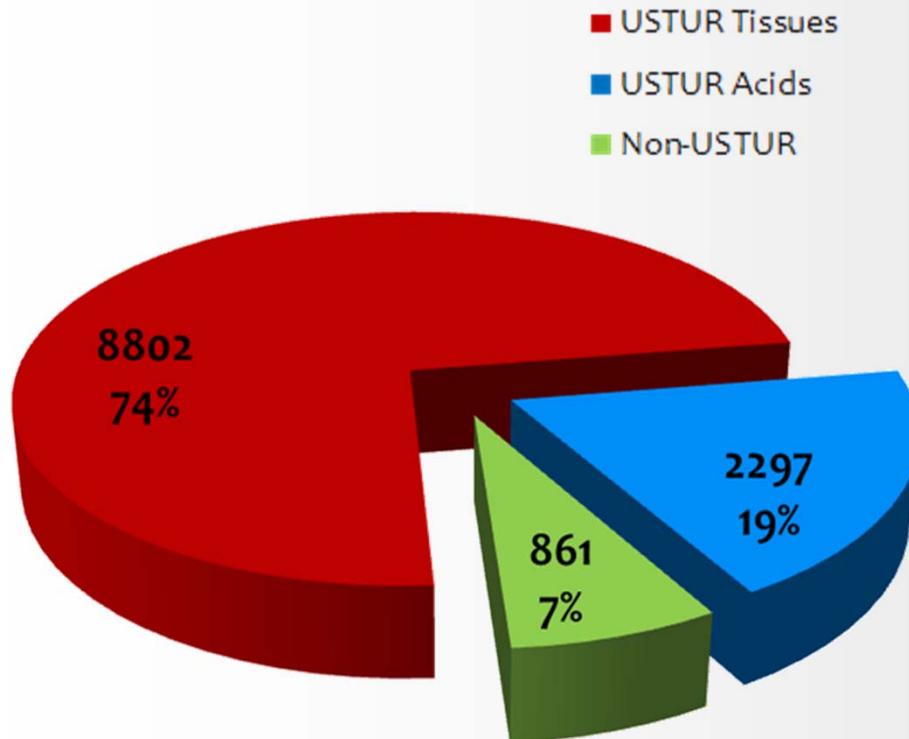


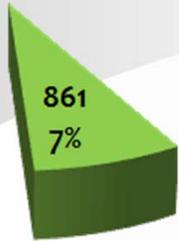
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*“Learning from Plutonium  
and Uranium Workers”*

# All Inventoried Samples 11,960 Samples





## Non-USTUR Samples

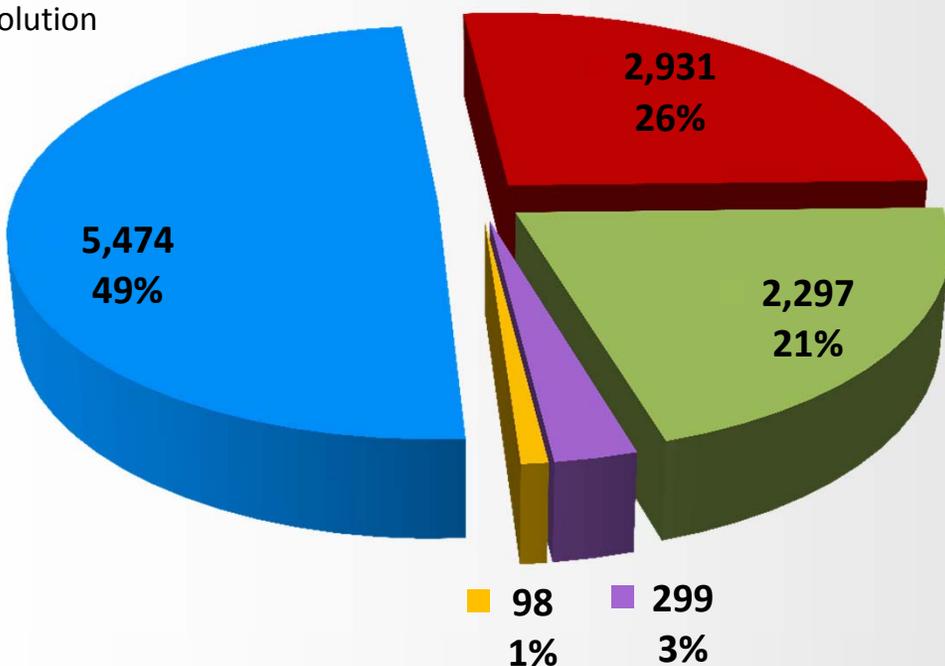
- Ra Dial Painter Bones
- Ra Artifacts
- Reagents
- LASL Population Studies
- Blanks
- Quality Control





# USTUR Samples

- Frozen Tissue
- Frozen Bone
- Acid Solution
- Fixed
- Misc.



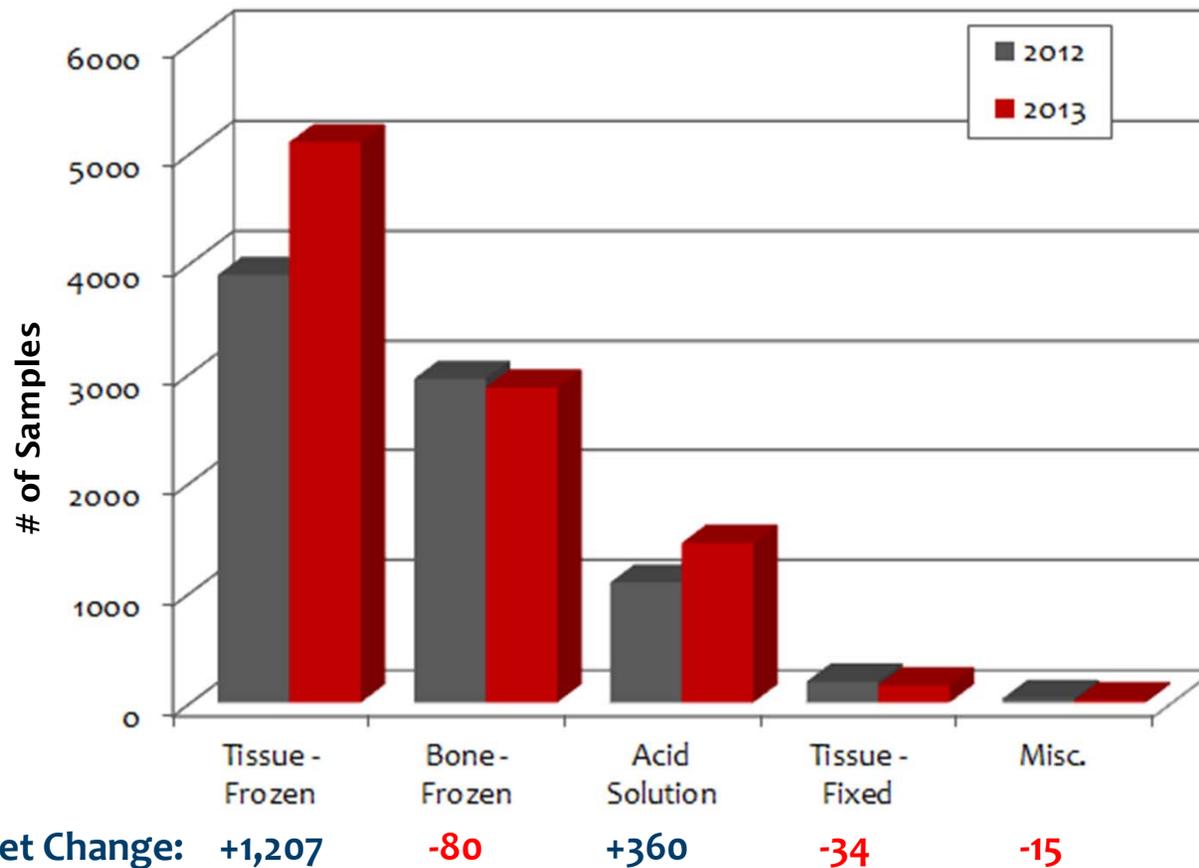
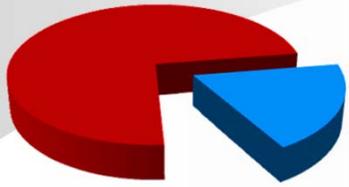
Cumulative Totals

**Aug 2012: 9,180**

**Aug 2013: 11,099**



# Changes Since the 2012 SAC Meeting

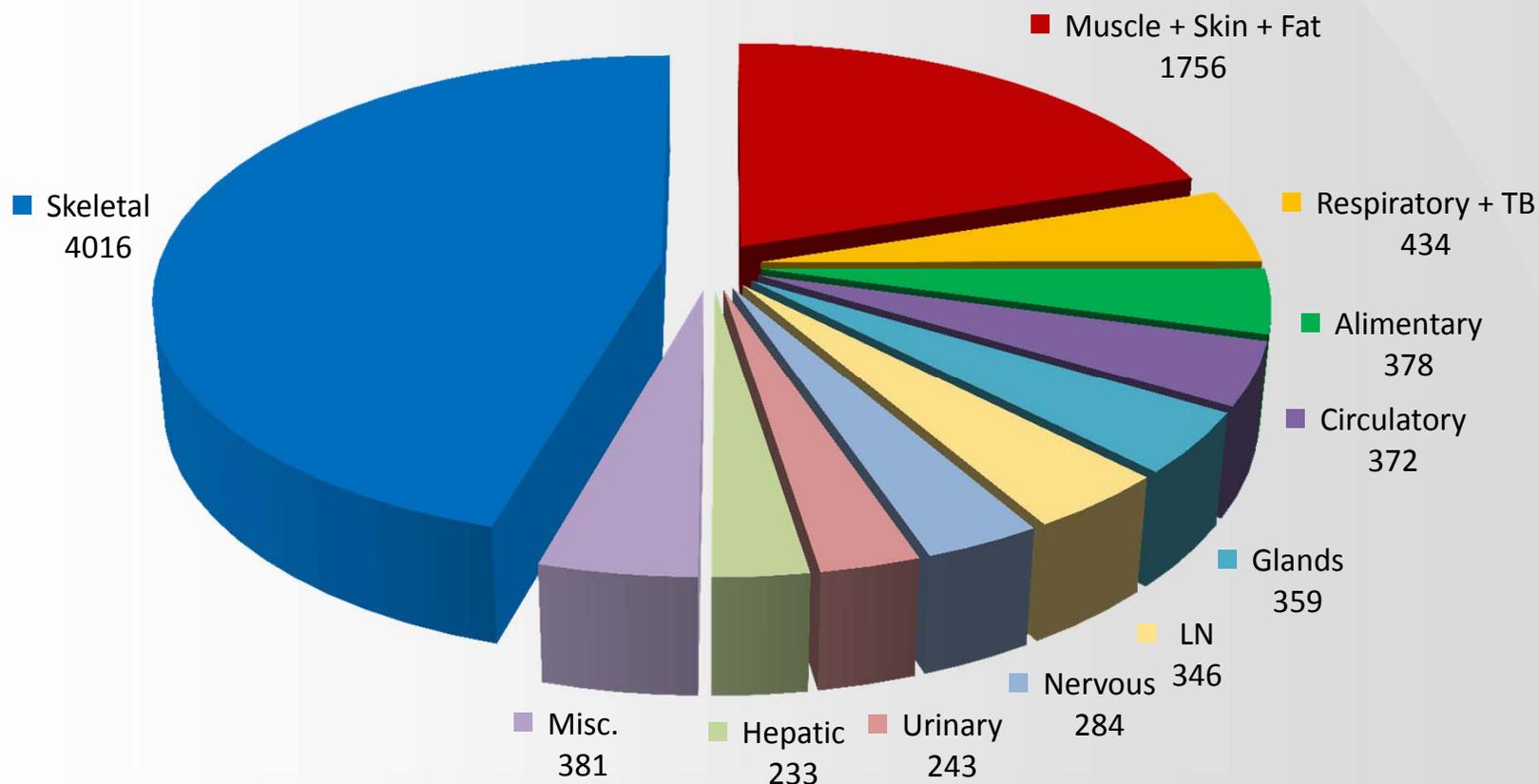


- Excludes subsamples
- Gray bars: samples logged in by Aug 2012
- Red bars: samples logged in by Aug 2013
- First samples inventoried in 2008



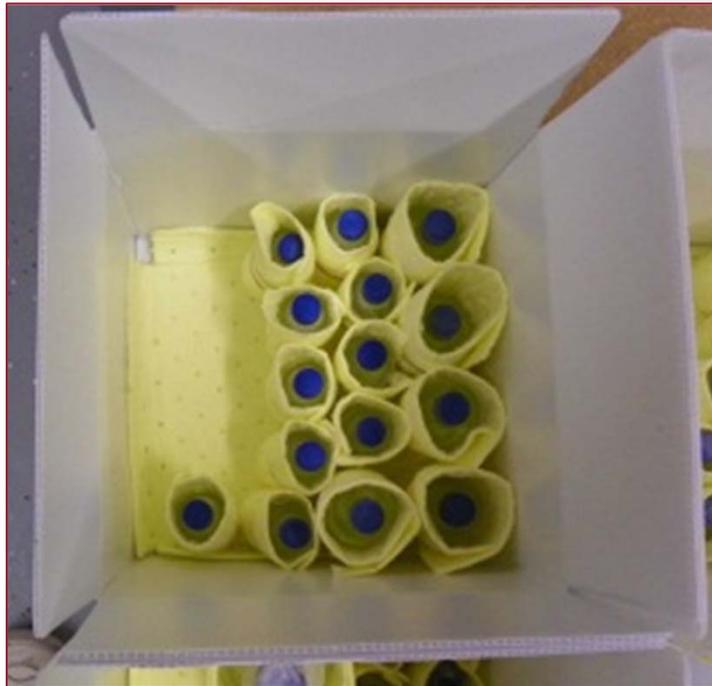
# Frozen and Fixed tissues

## by Tissue Type





# Acid Solutions



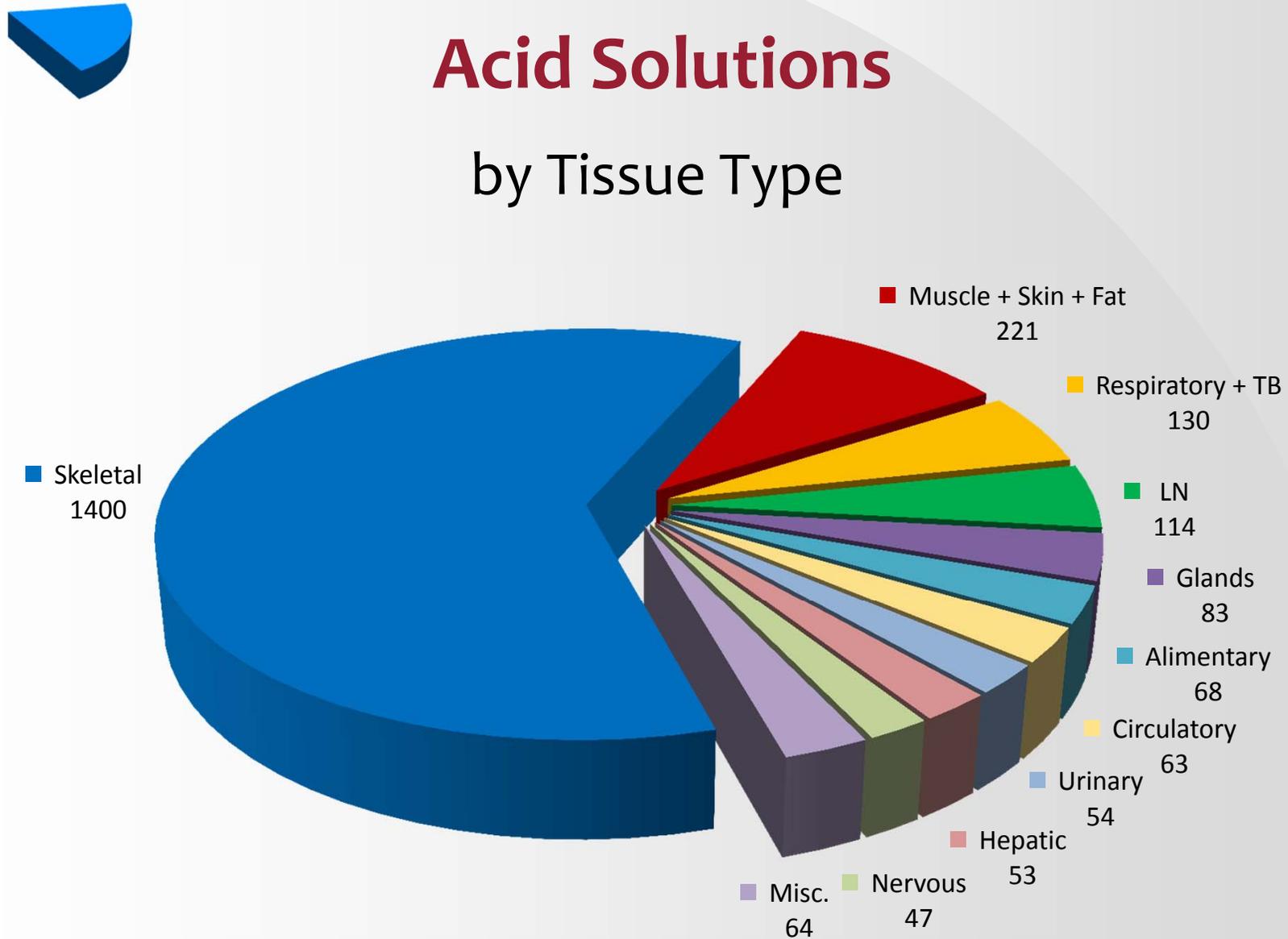
Bottles that have been wrapped in absorbent mat and boxed.

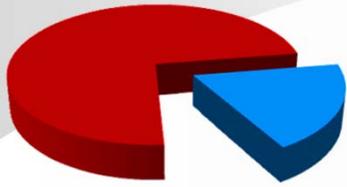
Two sources of samples:

- Recently dissolved USTUR tissues
- Repackaged “historic” acid solutions
  - ✓ LANL
  - ✓ NRC/USTUR



# Acid Solutions by Tissue Type





# Samples per Case

(Tissues and Acids Combined)

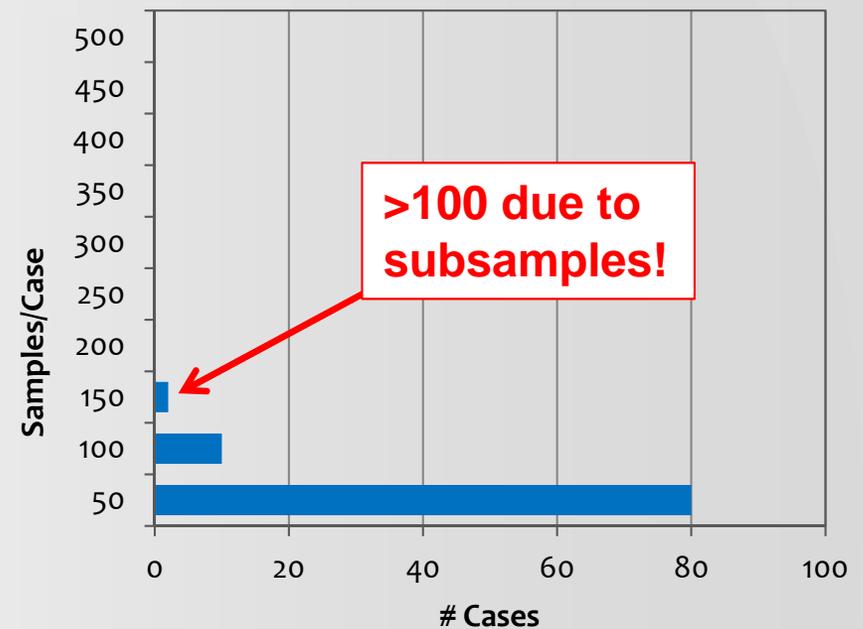
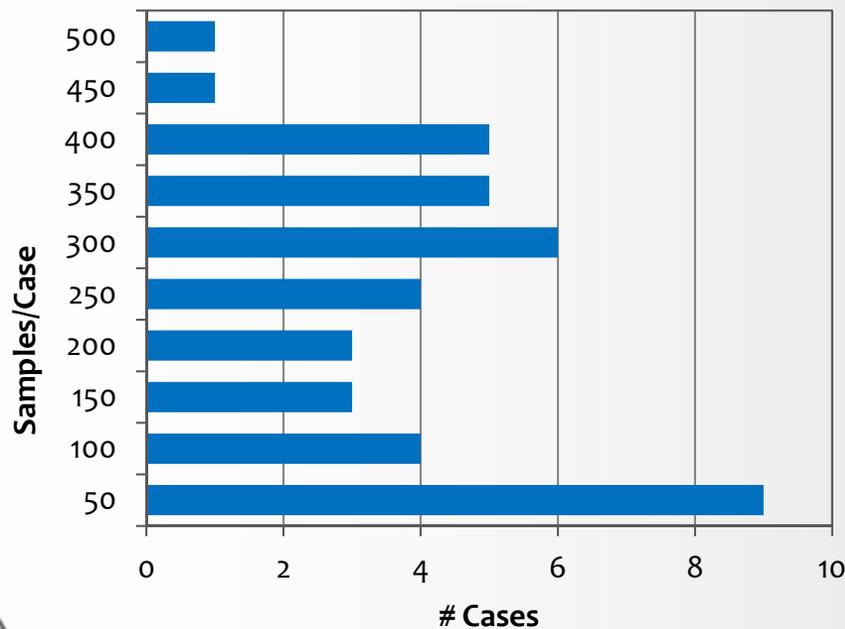
## Whole-Body

Samples from 41 cases  
Average: 207 samples/case  
St Dev.: 135 samples/case

## Partial-Body

Samples from 92 cases  
Average: 28 samples/case  
St Dev.: 25 samples/case

## Number of Samples > Number of Organs



# THEMIS Upgrade

- Automatically generates sample dissolution worksheets
  - ✓ Populates mass and sample ID fields
  - ✓ Done
- Tracks changes to a sample's mass
  - ✓ Subdivided, ashed, acid digested, etc.
  - ✓ Still working out bugs!



# Mass History Screen

USTUR Case #:	7777	Sample Barcode:	13000187
USTUR Sample #:	698	External Case #:	Ex-7777
Collection:	USTUR	Tissue:	Pericardium
Tissue Type:	Circulatory		

Mass:	500	g	Physical Form:	Acid Solution	Creation Date:	8/30/2013 3:59:57 PM
Mass Reason:	Dissolved by Radiochemistry					
Comments:						

Mass:	68	g	Physical Form:	Frozen	Creation Date:	8/30/2013 3:59:00 PM
Mass Reason:	Correction					
Comments:						

Mass:	70	g	Physical Form:	Frozen	Creation Date:	8/30/2013 3:56:15 PM
Mass Reason:	SubSample Removed					
Comments:	Subsample 698A removed					

Mass:	100	g	Physical Form:	Frozen	Creation Date:	8/30/2013 3:52:48 PM
Mass Reason:	New Sample					
Comments:	Initial Mass					



# Thank You!

