Mesothelioma Collections

December 2011 through December 2012
Work-Flow
Collaborative Effort

Presbyterian Thoracic Surgery Clinical Team

Patient

Tumor Tissue & Biospecimen Bank

Abramson Cancer Center
Melissa Culligan, RN, CCRC for the thoracic surgical team, approaches and consents patients for biospecimen collection. Once the patient consents, Melissa contacts the TTAB technician with the patient’s information.

On the day-of-surgery, the TTAB technician tracks the progression of the surgical procedure using NaviCare, the hospital’s patient tracking software.

One hour after incision occurs the technician accesses the OR to collect blood and urine, if available, and returns to the TTAB bench located within Surgical Pathology, which is less than 2 minutes away.

While processing the fluids at the TTAB bench, the Tech will receive a page that tissue is available for pick-up.
The Collection
The Collection

What happens to the tissue?

- Snap-frozen
- OCT embedded
- Formalin-fixed-paraffin-embedded (FFPE)
The Collection...

Typical collection yields 50 cc of blood & 40 cc of urine,... which is then processed into:

10 Plasma CPT aliquots
18 Plasma EDTA aliquots
8 Serum aliquots
5 Packed RBCs
2 PBMC aliquots
3 Whole bloods
4 Buffy coat aliquots
2 Urine aliquots
QA

Histologic confirmation & classification by Dr. Feldman.

Technician enters data in NMVB database.
Prospective Collections

Dec 2011 through Dec 2012

33 Subjects Collected

- 32 new subjects
- 1 subjects with follow up procedures/collections

- 18 Pleurectomies  (no other procedure performed)
- 15 Biopsies  (no other procedure performed)
Looking back in comparison...

Dec 2011 – Dec 2012

33 Cases

- 18 Pleurectomies
- 15 Biopsies

Dec 2010 – Dec 2011

23 Cases:

- 16 Pleurectomies (3 with associated biopsies)
- 4 Biopsies
Retrospective Collections


6 Retrospective cases have been identified and retrieved from archives.

These are now available to NMVB as paraffin blocks.
What’s this mean to NMVB as a resource?
<table>
<thead>
<tr>
<th>Tissue:</th>
<th>Fluid Biospecimens:</th>
</tr>
</thead>
<tbody>
<tr>
<td>211 Fresh-frozen tumor samples</td>
<td>288 Plasma EDTA aliquots</td>
</tr>
<tr>
<td>162 OCT blocks of tumor</td>
<td>160 Plasma CPT aliquots</td>
</tr>
<tr>
<td>305 Paraffin embedded blocks</td>
<td>128 Serum aliquots</td>
</tr>
<tr>
<td></td>
<td>80 Packed RBCs</td>
</tr>
<tr>
<td></td>
<td>31 PBMC aliquots</td>
</tr>
<tr>
<td></td>
<td>31 Whole bloods</td>
</tr>
<tr>
<td></td>
<td>62 Red Cell Folates</td>
</tr>
<tr>
<td></td>
<td>64 Buffy coat aliquots</td>
</tr>
<tr>
<td></td>
<td>32 Urine aliquots</td>
</tr>
</tbody>
</table>
TTAB, the Facility...

- Occupied for just 4 years... TTAB has operated out of temporary offices, closets, server rooms, etc. for a year & a half prior to moving into the new facility.

We did whatever it took, as long as we had dedicated bench space, to do our job.
The Freezer Room

Four -80 freezers,
Two -140 freezers,
One -20 Freezer,
One liquid nitrogen vapor-phase storage tank, and
One 4 degree refrigerator.

All are monitored 24/7 with staff providing on-call services in the event of a malfunction.
The Lab

Fully equipped for biospecimen processing:

- embedding machine
- 2 microtomes
- 2 centrifuges
- slide staining station
- microscope
The Lab

Plenty of room for growth in the years to come...
The Imaging Room

A Vectra spectral imaging microscope is a recent acquisition at TTAB.

We seek to integrate this technology into all projects.
Special thanks to...

Nancy Whelan, Dr. Michael Becich, & Dr. Waqas Amin