Cooperative Human Tissue Network (CHTN)
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The Pediatric Division serves the entire geographic area

(Nationwide Children’s H.)
# CHTN – a Unique Biospecimen Resource

<table>
<thead>
<tr>
<th></th>
<th>BIOREPOSITORIES</th>
<th>CHTN</th>
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</thead>
<tbody>
<tr>
<td><strong>Procurement</strong></td>
<td>Banking for future research</td>
<td>Prospective procurement based on a scientific question. Primary Surgery</td>
</tr>
<tr>
<td><strong>Specimen Storage and Distribution</strong></td>
<td>Stored at the repository</td>
<td>Distributed upon procurement</td>
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<tr>
<td><strong>Data Associated with Specimens</strong></td>
<td>Variable, may include clinical data</td>
<td>Pathology report. De-identified. Waiver of consent</td>
</tr>
<tr>
<td><strong>Sample Preservation</strong></td>
<td>Mostly FFPE, limited Fresh/frozen samples</td>
<td>Fresh/frozen samples, customized processing</td>
</tr>
<tr>
<td><strong>Range of Samples</strong></td>
<td>Usually targeted sets of samples</td>
<td>Wide range (tumor, normal, matched controls, rare samples)</td>
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<tr>
<td><strong>Access</strong></td>
<td>Specific research fields</td>
<td>Entire scientific community</td>
</tr>
<tr>
<td><strong>Research Supported</strong></td>
<td>Variable</td>
<td>Early discovery and translational research, assay development</td>
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<tr>
<td><strong>Sample Utilization</strong></td>
<td>Variable</td>
<td>Near 100%</td>
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CHTN-Scientific Impact 2012-2016

- 1,125 Individual researchers served:
  - 77% Academic Investigators; 2/3 R01s;
  - 18% Industry; 5% NIH Intramural, DOD

- 250K samples distributed 2012-2016

- Publications and patents (since 2012)
  - 854 publications; > 1/3 Impact Factor (IF) > 5
  - 103 patents

- CHTN PIs: Contributed to Biospecimen Science; Established Best Practices in Biobanking; Leaders in Biospecimen Organizations
**Funding**

- UM1 Cooperative Agreement-RFA
- Up to 6 awards; Open Competition
- Current funding level: $5M per year
- Requested funding for up to 6 awards: Total per year: $5.8 M
  
  Total for 5 years = $29 M

**Cost for Sample Preparation:**

- $\bar{x}$ cost/sample $150$ (all sample types); $50$ academic, $180$ industry user
- $50K$ samples/yr x $150 = 7.5M/yr = Total cost for sample preparation
- Investigator charge only covers $3.5M of sample cost/yr; $4M is covered by NCI grant funds

**Funding for:**

a) 20% increase in more elaborate requests (fresh samples, fluid samples, chart review, others): $700K/yr

b) Need for dedicated, central IT support (open competition); hosting, maintenance and upgrading the system: $100K/yr

**Main Goal:** Continue supplying samples to research community at large (Marketing)