New Advances in 2013: The 40th Anniversary of the Cancer Center at Johns Hopkins

William G. Nelson, M.D., Ph.D., Director
Sidney Kimmel Comprehensive Cancer Center
SKCCC Brief History

• 1968 - First formal cancer research program; Albert H. Owens, M.D., Director
• 1973 - authorized by the Trustees of the University and Hospital as academic Department and Hospital Functional Unit
• 1976 - Designated as NCI Comprehensive Cancer Center
• 1992 - Martin D. Abeloff, M.D. named Director
• 2001 - $153.9M naming gift from Sidney Kimmel
• 2008 - William G. Nelson, M.D., Ph.D. named Director
• 2011 - 50th year of NCI support for cancer research
• 2013 - 40th anniversary of authorization by the Trustees
SKCCC Clinical Program Capacity
Medical/Pediatric Oncology

• Inpatient (all at Weinberg Building in East Baltimore)
  – 80 beds for Medical Oncology, Hematologic Oncology, Hematology
  – 20 Pediatric Oncology beds

• Outpatient
  – East Baltimore: 60 infusion chairs, 30 IPOP/infusion chairs, 30 exam rooms
  – Greenspring Station: 12 chairs
  – Bayview Medical Center: 12 chairs
  – Sibley Hospital: 12 chairs
  – Suburban Hospital: 6 chairs

• Housing
  – Hackerman-Patz Patient and Family Pavilion: 40 suite hotel

• Surgery
  – 50% of all surgery at JHH is for cancer
Quality of Cancer Care at SKCCC and Other NCI-Designated Cancer Centers

Example: AJCC Stage I Pancreatic Cancer

![Graph showing the fraction remaining alive vs. years from diagnosis for SKCCC, NCI Centers, MD, and US. The graph illustrates the quality of cancer care at these centers, with SKCCC having the highest survival rate at 48% after 5 years, followed by NCI Centers at 26%, MD at 20%, and US at 19%.](image)
# Multidisciplinary Pancreatic Cancer Clinic: Patient Experience

<table>
<thead>
<tr>
<th>Time period</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:00–09:00</td>
<td>Arrival; necessary imaging and laboratory studies obtained</td>
</tr>
<tr>
<td>09:00–10:00</td>
<td>Patients given overview of support services (10–15 min briefings)</td>
</tr>
<tr>
<td>10:00–12:00</td>
<td>Patients seen by physician extenders (nurse practitioners, physician assistants, residents, and fellows) for complete history/physical exam</td>
</tr>
<tr>
<td>12:00–14:00</td>
<td>Formal case review by multidisciplinary tumor board</td>
</tr>
<tr>
<td>14:00–16:00</td>
<td>Full details recommendations discussed with patient; note dictated to referring physician</td>
</tr>
</tbody>
</table>
### Multidisciplinary Pancreatic Cancer Clinic: Effect on Treatment Planning

<table>
<thead>
<tr>
<th>Reason for change in recommended management for 48 out of 203 (23.6%) of consecutive pancreas cancer patients</th>
<th>Number of patients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in findings of cross-sectional imaging</td>
<td></td>
</tr>
<tr>
<td>No lesion seen on repeat imaging</td>
<td>4</td>
</tr>
<tr>
<td>Previously unrecognized locally unresectable disease</td>
<td>3</td>
</tr>
<tr>
<td>Previously unrecognized metastatic disease</td>
<td>26</td>
</tr>
<tr>
<td>Disease deemed to be resectable</td>
<td>5</td>
</tr>
<tr>
<td>Change in diagnosis based on pathologic review</td>
<td>7</td>
</tr>
<tr>
<td>Change in surgical recommendation</td>
<td>5</td>
</tr>
</tbody>
</table>

Current Range of Multidisciplinary Initial Evaluation Clinical Services

• SKCCC Multidisciplinary Clinic offerings in:
  – Head and Neck Cancers
  – Lung Cancer (including a Pulmonary Nodule Clinic)
  – Breast cancer
  – Prostate Cancer
  – Liver Cancer
  – Colorectal Cancer
  – Pancreas Cancer

• ~10-20% of new patients with these diseases pass through these Clinics

• Key personnel is Clinic Coordinator- usually an NP with specialized expertise

• Diagnosis/tumor grade/tumor stage changes for as many as 25% or more of cases with treatment implications*

SKCCC Regional Impact

All Cancer Cases

58 counties in the primary cluster

9 counties in the secondary cluster

Pancreatic Cancer

132 counties in the primary cluster
New Nonmyeloablative Bone Marrow Transplantation (NMBT) Strategy has Nearly Eliminated Graft-Versus-Host Disease (GVHD) from Allogeneic Bone Marrow Transplantation (alloBMT)*

- NMBT using haploidentical donors now treatment of choice for many leukemias and lymphomas despite race/ethnicity or age
- Post-transplantation lymphoproliferative disorder (PTLD) eliminated by NMBT
- Improved outcome for poor-risk (FLT3-ITD mutation) acute myeloid leukemia with NMBT
- NMBT mechanism appears to involve sparing of “regulatory T-cells”
- 8 of 17 subjects with sickle cell disorder and frequent and severe pain crises have been cured of disease by NMBT
- NMBT Appears to improve outcomes of other major organ transplants

Immune Checkpoint Inhibitors are Poised to Transform Cancer Care: Development of Nivolumab*