UPDATE FROM NCI
SITC ANNUAL MEETING
OCTOBER, 2012

William Merritt
Program Director
CGCB/DCTD
National Cancer Institute
Trend in RPGs funded

E-1
Research Project Grants Number of Awards
Fiscal Years 2002-2012

*Includes Small Business Innovation Research and Small Business Technology Transfer Awards

<table>
<thead>
<tr>
<th>Year</th>
<th>Competing</th>
<th>Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>1,547</td>
<td>3,429</td>
</tr>
<tr>
<td>2003</td>
<td>1,688</td>
<td>3,467</td>
</tr>
<tr>
<td>2004</td>
<td>1,785</td>
<td>3,682</td>
</tr>
<tr>
<td>2005</td>
<td>1,428</td>
<td>3,984</td>
</tr>
<tr>
<td>2006</td>
<td>1,455</td>
<td>3,980</td>
</tr>
<tr>
<td>2007</td>
<td>1,475</td>
<td>3,997</td>
</tr>
<tr>
<td>2008</td>
<td>1,503</td>
<td>3,877</td>
</tr>
<tr>
<td>2009</td>
<td>1,387</td>
<td>3,791</td>
</tr>
<tr>
<td>2010</td>
<td>1,387</td>
<td>3,692</td>
</tr>
<tr>
<td>2011</td>
<td>1,166</td>
<td>3,853</td>
</tr>
<tr>
<td>2012</td>
<td>1,220</td>
<td>3,801</td>
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</tbody>
</table>
Funding of RPGs

- R01 X 10-1
- P01
- U01
- R21
- R33

Year: 2003 to 2012
FY 2011 Funded Grants

FY 2011 Budget: $5.058 million
43% for RPG pool

T1/2 R01s: 1st to 7th percentile: 342
8th to 15th % plus: 316
Other RPGs: 448
Total: 1106

Source: NCI Factbook 2011
Second Level Evaluation of R01s above Payline

- “Payline” at 7 percentile for FY11 and FY12
- 8-15 percentile and/or impact score generally less than 30 can be brought forward for further consideration

- Rationale: Grants above “best of the best” need to be prioritized to fill gap in NCI grants portfolio and/or have especially novel and/or promising approach: now a broad range of applications considered

- PD prepares justification for funding
- Rank-ordered in Programs and then Divisions
- Final decisions at Senior Leadership meeting (Division leaders with NCI director)
FY12 and FY13

- **FY12**
  - 5.07 Billion (increase 12 million from FY11)
  - Approximately same number of R01s as FY11
  - 17% cut in budgets in funded competing grants
  - Non-competing: no COLA (2% cut from committed)

- **FY13**
  - Continuing resolution until March 2013 (holding our breath regarding new budget)
  - “Payline” (most likely to be funded) has been extended to 9% from 7%
  - Range of scores for “consideration” outside of the payline not announced but expected to be similar to FY12
# Immunotherapy Grants in CTEP: Hem Malignancies

<table>
<thead>
<tr>
<th>Disease</th>
<th>R01</th>
<th>P01</th>
<th>R21</th>
<th>R00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Myeloma</td>
<td>0</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lymphoma</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NHL</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hodgkin</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mantle Cell</td>
<td>0</td>
<td>0</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Leukemia</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Myeloid</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALL</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CLL</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CML</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple Hem</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>4</strong></td>
<td><strong>13</strong></td>
<td></td>
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## Immunotherapy Grants in CTEP: Solid Tumors

<table>
<thead>
<tr>
<th>Disease</th>
<th>R01</th>
<th>P01</th>
<th>R21</th>
<th>U01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melanoma</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brain</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast</td>
<td>4</td>
<td>0</td>
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<tr>
<td>Pancreatic</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Renal</td>
<td>1</td>
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<tr>
<td>Prostate</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ovarian</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Hepatocellular</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neuroblastoma</td>
<td>1</td>
<td>2</td>
<td>1</td>
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</tr>
<tr>
<td>Colorectal</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thoracic</td>
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<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasopharyngeal</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multiple</td>
<td>1</td>
<td>4</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>17</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Rank</td>
<td>Agent</td>
<td>Category</td>
<td>Source</td>
<td>Status</td>
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<tr>
<td>------</td>
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<td>-------------------------------</td>
<td>------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>1</td>
<td>IL-15</td>
<td>T cell growth factor</td>
<td>NCI/BRB</td>
<td>Approved protocol</td>
</tr>
<tr>
<td>1a</td>
<td>IL-15/IL15Rα</td>
<td>T cell growth factor</td>
<td>Altor</td>
<td>LOI submission to CTEP shortly</td>
</tr>
<tr>
<td>3</td>
<td>Anti-PD1/PDL1</td>
<td>T cell checkpoint inhibitor</td>
<td>Under active negotiation</td>
<td>Concepts (4) anti-PDL1 developed</td>
</tr>
<tr>
<td>4</td>
<td>Anti-CD40</td>
<td>APC stimulator</td>
<td>Pfizer</td>
<td>Study opened for accrual!</td>
</tr>
<tr>
<td>5</td>
<td>IL-7</td>
<td>T cell growth factor</td>
<td>Cytheris</td>
<td>1 combination trial protocol in CTEP review; 2nd concept in development</td>
</tr>
<tr>
<td>7</td>
<td>1- MT or alternate</td>
<td>IDO inhibitor</td>
<td>Incyte</td>
<td>2 studies: 1 LOI CTEP approved, 1 in review</td>
</tr>
<tr>
<td>10</td>
<td>Anti-IL10</td>
<td>Suppression inhibitor</td>
<td>Under active negotiation</td>
<td>Concepts (2) developed</td>
</tr>
<tr>
<td>11</td>
<td>Flt3-L</td>
<td>DC growth factor</td>
<td>Celldex</td>
<td>Concept developed and LOI written</td>
</tr>
</tbody>
</table>
Anti-CTLA4 (ipilimumab)
- 58 LOIs received
  - 10 approved/4 in review
  - Diverse solid tumors plus 3 Hematologic
- 8 concepts received
  - (3 approved/3 in review)
  - Melanoma (4); Glioblastoma/Astocytoma (2)

IL-15
- 4 INDs open including CITN
- Not accepting LOIs now until Phase I results received

IL-12; 2 LOIs approved
Potential Agents from CTEP

- Agents:
  - Anti-PD1
  - IDO inhibitor (1-MT or alternate)
  - Pomalidomide

- Agents under review after preliminary discussions with companies (no CRADA)
Agents in Production Stages
Biological Resources Branch/NCI

• rhIL-15 (supplement current lots)
• ch14.18 anti-GD2 monoclonal antibody
• hIg-4-1BBL (tox lot production)
• rhIL-7
  • Potential replacement for company as supplier
  • Under discussion
• Contact Dr. Steve Creekmore
  (creekmores@mail.nih.gov)
Agents for Pre-clinical Studies
Biological Resources Branch

- Cytokines: IL-15, IL-7, IL-12
- Vaccine adjuvant: MPL (monophosphoryl Lipid A)
- Ligands: CD40 Ligand
- Chemokines: Adv-CCL21
- Anti-ganglioside antibodies: Anti-GD2 (ch.14.18, hu14.18-IL2, 1A7) and Anti-GD3 (R24, stock)
- Other antibodies and cytokines in BRB repository: http://web.ncifcrf.gov/research/brb/default.aspx

- Contact Karen Muszynski for NCI 2007 prioritized agents and anti-GD2 Abs
- Order Stock Reagents through BRB website
NCI EXPERIMENTAL THERAPEUTICS (NEXT) PROGRAM

Barbara Mroczkowski, Ph.D.
Special Assistant to the Deputy Director for Clinical and Translational Research
Executive Secretary, NCI Experimental Therapeutics Program
National Cancer Institute
mroczkowskib@mail.nih.gov
Transformation of the NCI Therapeutics Pipeline

Harmonize Activities into Single Pipeline

Drug Discovery | Early Development | Full Development

September 15th 2009: Cycle 1 Solicitation of Applications
Eligibility: US and International Researchers from Academia, Industry, and Non-profit Organizations
First cycle reviewed in December 2009
* Cycle 11 under review
9 NExT-initiated projects have been discontinued.
Projects that are closed or awaiting resourcing are not included.
Access to NExT

http://next.cancer.gov

The NCI Experimental Therapeutics (NExT) Program

A Unique Partnership with the NCI to Facilitate Oncology Drug Discovery and Development

Who: Researchers in academia, government, and industry, nationally or internationally.
Clinical Assay Development Program (CADP)

- **Purpose**: Provide services to facilitate moving potential clinical marker assay to validated biomarker
- **Come in after assay in hand but before development**
- **Testing assay performance using retrospective samples**
- **Assay optimization**: controls, analytical parameters, lot acceptance criteria
- **Statistical support to assist in assay clinical validation**
- ** Integral vs. integrated assays preferred**
- **Link to Phase III vs. Phase II preferred**
- **Contact**: Dr. M. Thurin (thurinm@mail.nih.gov)
Omnibus R21 (PAR-17-145)

- Purpose: Exploratory/Developmental Projects, pilot studies
- No restrictions on topics (includes clinical research)
- Budget: $275K direct costs ($200K, any 1 yr)
- May, 2012: first submission date (standard receipt dates apply)
- Review in NCI, but will be percentiled with other CSR-reviewed R21s
Cancer Biomarkers PAs

- **R01** (PA-12-013) and **R21** (PA-12-014)
- “Validation of Molecular Diagnostics to Predict Outcomes using Specimens from Multi-site Cancer Trials”
- Purpose: to transition candidate biomarkers from initial observations to a marker suitable for use for determining prognosis or predicting response to therapies
- Standard receipt dates apply
- Contact: Drs. Magdalena Thurin (DCTD/CDP) or Min Song (DCTD/CTEP)