National Toxicology Program
Director’s Report

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Director
National Institute of Environmental Health Sciences
National Toxicology Program

NTP Board of Scientific Counselors Meeting
December 7-8, 2017
## Congressional Appropriations Comparison Table

<table>
<thead>
<tr>
<th></th>
<th>FY 2015 Omnibus Appropriation</th>
<th>FY 2016 Omnibus Appropriation</th>
<th>FY 2017 Omnibus Appropriation</th>
<th>FY 2018 President’s Request</th>
<th>FY 2018 House-Passed Appropriations</th>
<th>FY 2018 Senate Appropriations Committee</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIEHS</td>
<td>$667,333,000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>$693,533,000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>$714,261,000</td>
<td>$533,537,000</td>
<td>$725,387,000</td>
<td>$737,727,000</td>
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<tr>
<td>Ebola (via CDC)&lt;sup&gt;b&lt;/sup&gt;</td>
<td>$10,000,000</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>NIH (LHHS)&lt;sup&gt;c&lt;/sup&gt;</td>
<td>$30,084,000,000</td>
<td>$32,084,000,000</td>
<td>$34,084,000,000</td>
<td>$26,701,103,000</td>
<td>$35,184,000,000</td>
<td>$36,684,000,000</td>
</tr>
<tr>
<td>Common Fund&lt;sup&gt;d&lt;/sup&gt;</td>
<td>$545,639,000</td>
<td>$675,639,000</td>
<td>$685,456,000</td>
<td>$454,423,000</td>
<td>$695,580,000</td>
<td>$587,890,000&lt;sup&gt;e&lt;/sup&gt;</td>
</tr>
<tr>
<td>Superfund</td>
<td>$77,349,000</td>
<td>$77,349,000</td>
<td>$77,349,000</td>
<td>$59,607,000</td>
<td>$76,349,000</td>
<td>$77,349,000</td>
</tr>
<tr>
<td>NIEHS/DOE Training</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td>$10,000,000</td>
<td></td>
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<sup>a</sup> Reduced by $169,000 transfer to the NIH Office of AIDS Research.  
<sup>b</sup> Transfer from CDC Ebola Emergency Response appropriation to NIEHS to remain available through FY 2019.  
<sup>c</sup> Excludes Mandatory Type 1 Diabetes Research and Superfund.  
<sup>d</sup> Includes addition of $12.6 million for the Gabriella Miller Kids First Act pediatric research initiative.  
<sup>e</sup> Excludes $60 million “All of Us” Precision Medicine funding which the committee moved to the NIH OD.
FY2018 Appropriations – Key Decision Points

• Resolution Needed on “Budget Caps” –
  - Sets “Topline Numbers” for the 12 appropriations bills
  - House and Senate versions differ on “topline numbers”
  - “Budget Control Act of 2011” (BCA) still law

<table>
<thead>
<tr>
<th>FY2018 Budget</th>
<th>Defense Spending</th>
<th>Non-Defense Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCA Cap (current law)</td>
<td>$549.5 billion</td>
<td>$516 billion</td>
</tr>
<tr>
<td>FY18 House Budget Resolution</td>
<td>$621.5 billion</td>
<td>$511 billion</td>
</tr>
<tr>
<td>Δ</td>
<td>$72 billion over (↑)</td>
<td>$5 billion under (↓)</td>
</tr>
</tbody>
</table>

- Absent amendment to the BCA, **Sequestration** Triggered
- Negotiations are in progress with goal to conclude by Dec. 22
FY2018 Appropriations

How NIEHS fits in the big picture...

- **Resolution Needed on “Budget Caps”**
  - Amendment to *Budget Control Act* to avoid Sequestration

- **Reconciliation of 12 appropriations bills**
  - Likely Passage in form of an “Omnibus”

<table>
<thead>
<tr>
<th>FY2018 Proposals</th>
<th>House Bill</th>
<th>Senate Bill</th>
<th>Δ Between House and Senate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor, HHS, Education Bill Topline Amount</td>
<td>$156 billion ($5 billion ↓ FY17)</td>
<td>$164.1 billion ($3 billion ↑ FY17)</td>
<td>$8.1 billion</td>
</tr>
<tr>
<td>NIH vs FY17 Enacted</td>
<td>$1.1 billion ↑</td>
<td>$2 billion ↑</td>
<td>$0.9 billion</td>
</tr>
<tr>
<td>NIEHS vs FY17 Enacted (excludes SRP &amp; WTP)</td>
<td>$11.126 million ↑</td>
<td>$23.466 million ↑</td>
<td>$12.34 million</td>
</tr>
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</table>

- **Debt Ceiling Deadline** – Extended until ~March 2018
- **3rd Disaster Relief Supplemental Appropriations ?**
Latest Legislative Developments

- **Airplanes Health Impact Study**
  - Folded into “FAA Reauthorization bill”
  - Requires FAA to fund NIEHS grantee for an health impacts study

- **Federal Accountability in Chemical Testing Act (FACT Act)**
  - Requires ICCVAM to publicly report animal use data
  - Pending in House (63 cosponsors)
  - NTP/NICEATM briefing provided in May

  - Authorizes DOD-funded CDC health impacts study
  - Requires DOD to remediate contaminated drinking water
  - Requires DOD to work on AFFF replacement chemicals
Congressional Briefings by Friends of NIEHS:

- **Environmental Factors and Autoimmune Diseases**
  - Held on October 12, four speakers:
    - Dr. Rick Woychik, NIEHS Deputy Director
    - Dr. Fred Miller, NIEHS Clinical Research Branch
    - Dr. Dori Germolec, NIEHS NTP Division
      - Highlighted PFAS work
    - Dr. John Barnett, NIEHS grantee at WVU

- **Environmental Factors and Neurological Diseases**
  - Planned for March 2018
    - Michael J. Fox Foundation partnering to sponsor
Binding of Bisphenol A, Bisphenol AF, and Bisphenol S on the Androgen Receptor: Coregulator Recruitment and Stimulation of Potential Interaction Sites.
Perera L (DIR), Li Y (DIR), Coons LA, Houtman R, van Beuningen R, Goodwin B, Auerbach SS (DNTP) and Teng CT (DNTP). Toxicology in vitro 2017 Oct;44:287-302
New rodent population models may inform human health risk assessment and identification of genetic susceptibility to environmental exposures.

Harrill AH (DNTP) and McAllister KA (DERT). Environ. Health Perspect. 2017 Aug 15;125(8):086002. [ePub]
An Intuitive Approach for Predicting Potential Human Health Risk with the Tox21 10k Library.
Sipes NS (DNTP), JF Wambaugh, R Pearce, SS Auerbach (DNTP), BA Wetmore, JH Hsieh (DNTP), AJ Shapiro (DNTP), D Svoboda, MJ DeVito (DNTP) and SS Ferguson (DNTP). Environ Sci Technol. 2017, 51 (18), pp 10786–10796
Three-Dimensional (3D) HepaRG Spheroid Model with Physiologically Relevant Xenobiotic Metabolism Competence and Hepatocyte Functionality for Liver Toxicity Screening.


Figure 3. MRP2 localization in HepaRG spheroids. Immunofluorescent staining of MRP2 (green) and nuclei (blue) on HepaRG spheroids (scale bar 100 µm).
NIEHS IT Leadership – Office of Environmental Science Cyberinfrastructure (OESC)

- Interim Director of Environmental Science Cyberinfrastructure (DESC), Jeff Shilling (NCI)
- Interim DESC provides matrix leadership for the “Group of Four”
  - Computer Technology Branch (CTB), Bernard Brown
  - Office of Scientific Computing (OSC), David Fargo
  - Office of Data Science (ODS), Stephanie Holmgren (Acting Director)
  - Office of Communication and Public Liaison (OCPL), Christine Flowers

Jeff Shilling  
OESC

Bernard Brown  
CTB

David Fargo  
OSC

Stephanie Holmgren  
ODS

Christine Flowers  
OCPL (Web)
ReImagine HHS Initiatives

- Restoring Market Forces
- Putting People at the Center of HHS Programs
- Leveraging the Power of Data
- Turning HHS into a More Innovative and Responsive Organization
- Generating Efficiencies through Streamlined Processes
- Moving to a 21st Century Workforce
Hiring “Freeze” Update

• Limited Authorities:
  – Exempted positions necessary to meet national security/cybersecurity, public safety, critical infrastructure, direct patient care
  – Lateral Reassignments and Details
  – Pathways and Presidential Management Fellows
  – PHS Commissioned Corps
  – Very limited NIH-wide needs (contract specialists)
Incoming Associate Director of NTP
and Scientific Director of DNTP

Dr. Brian Berridge, D.V.M., Ph.D, D.A.C.V.P.
Strategic Planning Current Status

- New NIEHS Strategic Plan
  - NIEHS Leadership currently reviewing input, establishing organization of the new Plan
  - Publication of draft framework and objectives for the new Plan scheduled for end of January 2018
  - Draft will be posted on the NIEHS Website and comments accepted until early March
  - Text will be subsequently finalized and shared with advisory committees
  - Publication of new Plan anticipated in Fall 2018
Recent Events:

- Peer Review of the Draft RoC Monograph on Haloacetic Acids found as Water Disinfection By-Products, NIEHS, July 24
- 4th International Symposium on Systematic Review and Meta-Analysis of Laboratory Animal Studies, NIEHS, August 24-25
- North Carolina Society of Toxicology Annual Meeting, October 30
- Understanding Pathways to a Paradigm Shift in Toxicity Testing and Decision Making, November 20-21
Upcoming Events:

- The Promise of Genome Editing Tools to Advance Environmental Health Research, Jan 10-11
- Peer Review of the Draft Report on Carcinogens Monograph on Antimony Trioxide, Jan 24
- Informing Environmental Health Decision Through Data Integration, Feb 20-21
- Building a Better Epithelium: Breaking the Barrier to the Next Generation of Toxicity Testing, March 10
- Society of Toxicology 57th Annual Meeting and ToxExpo, March 11-15
- Keystone Symposia on Molecular and Cellular Biology: Organs-and Tissues-on-Chips, April 8-12
Thank You!