Thanks to...

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Topics

• Distribution of appropriated NCI budget
• Overall trends FY14 - FY20
• Focus on FY20
  • FY20 is the latest fiscal year for which we have full information
• Estimated NCI budget increase needed for RPG payline to get to “15 by 25”
NCI Appropriations
FY 2015 – 2022 (in millions)

21st Century Cures Act - orange
Childhood Cancer Initiative - green

FY 2015: $4,950
FY 2016: $5,215
FY 2017: $5,689
FY 2018: $5,965
FY 2019: $6,144
FY 2020: $6,440
FY 2021: $6,559
FY 2022: $6,733

+ $306M
COVID-19 serology (April 2020)
How does NCI spend its money?

Based on FY 2020 Actuals and excludes Cancer Moonshot funding
How has NCI spent the increases since 2014 ~$1,313M?

The RPG portion of NCI’s total budget increased from ~41% to ~43% between 2014 and 2020.
How does NCI spend its money?

Based on FY 2020 Actuals and excludes Cancer Moonshot funding

- Extramural Funding: 75%
- Research Grants: 43%
- Research Project Grants: 25%
- Centers & SPOREs: 9%
- Other Research Grants: 8%
- R&D Contracts: 13%
- National Research Service Awards (NRSA): 2%
- Research Management & Support: 7%
- Intramural Research: 17%
- Buildings & Facilities: 0.5%
FY 2020 Research Project Grants

- **Traditional R01**: 56%
- **R01 Traditional**:
- **R01 RFA**:
- **P01 Program Projects (Excludes RFA)**:
- **R21 (Excludes RFA)**:
- **R35**:
- **R37**:
- **U01, U19, U43, UM1, UH2, UH3, UG3 (Excludes RFA)**:
- **DP1, DP2, DP5, R15 (Excludes RFA)**:
- **RFA (Excludes R01 RFA)**:
- **Other (R33, R00, R03, R50, R56)**:
- **SBIR/STTR**

Based on FY 2020 Actuals and excludes Cancer Moonshot funding
How does NCI spend its money?

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  - Other Funding: 25%
What are Other Research Grants?

- Clinical Cooperative Groups (U10, UG1) 56%
- Resource Grants (U24/R24) 21%
- Research Careers (K Awards) 19%
- Cancer Education (R25) 3%
- Other (D43, F99, U2C, U2R, U13, OT2, R13, R38) 1%

Based on FY 2020 Actuals and excludes Cancer Moonshot funding
How does NCI spend its money?

Based on FY 2020 Actuals and excludes Cancer Moonshot funding
Centers & SPORES

Based on FY 2020 Actuals and excludes Cancer Moonshot funding
Examples of Frederick National Lab for Cancer Research Activities

Examples of Direct Support Include:
- NCI Experimental Therapeutics (NExT)
- NCI Patient-Derived Models Repository
- Genomic Data Commons
- SeroNet Coordinating Center
- SeroNet Capacity Building Centers

Examples of Indirect Support Include:
- RAS Initiative
- Nanotechnology Characterization Lab
- Antibody Characterization Lab
- AIDS and Cancer Virology Program
- Laboratory Directed Exploratory Research
- Cryo-Electron Microscopy
- Laboratory Animal Science Program
NCI spends ~ $280M to train and develop a strong workforce of cancer researchers*

* Excludes funding in the RPG Pool that supports graduate students, post-graduate fellows, and early stage investigators working within funded grant teams

Based on FY 2020 Actuals excludes Cancer Moonshot funding
How did NCI manage increased costs in FY 2020?

(dollars in millions)

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<th>Sources of Funds</th>
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- **STAR/CCDI** $75
- **Mandatory costs***, $76
- **General Congressional increase**, $427
- **Pediatric MATCH, CONNECT, Cancer Centers, Etc**, $183
- **RPGs non-competing & competing investments**, $243

*Mandatory costs include HHS/NIH assessments, Secretary's & AIDS transfers, required pay and NRSA stipend increases, and additional SBIR requirements

Based on FY 2020 Actuals excludes Cancer Moonshot funding
Trends in NCI grant applications and payline
Increase in Unique NCI R01/R37 Applicants
Data include all MPI/PIs

Sources: IMPACII analysis of PIs on R01/R37 applications (type 1, 2, 9)
NCI Research Project Grants (RPG) Funding and R01 Paylines

- RPG funding levels include program evaluation and Small Business Innovation Research.
- FY 2021 reflects an estimate, and FY 2022 through FY 2025 are proposed professional judgment budget levels. Estimates beyond FY 2020 are subject to change due to unanticipated inflation rates, average cost increases, and fluctuations in application rates as the country recovers from the COVID-19 pandemic.
- R01 paylines for FY 2022 through FY 2025 are proposed levels based on estimated funding levels included in this professional judgment budget.
RPG pool would need large increases between FY21 and FY25 to achieve “15 by 25”

- RPG pool budget needs to be ~$1.4 billion larger in FY25 than in FY21 to achieve “15 by 25”
  - (RPG size: from $2.8 billion in FY21 to $4.2 billion in FY25)

- If ~50% of the NCI budget increase goes to the RPG pool, the NCI’s total budget would need an increase of ~$2.8 billion between FY21 and FY25 to achieve “15 by 25” for RPG pool to increase ~$1.4 billion
Summary

• NCI has prioritized RPG funding
  • But not neglecting the other parts of its research portfolio
• A considerable amount of extramural research funded by NCI is outside the RPG pool
• Large increases to NCI budget will be needed to reach “15 by 25”