A NEW APPROACH TO P30 CANCER CENTER SUPPORT GRANT FUNDING

Report of the National Cancer Advisory Board *Ad Hoc* Cancer Centers Working Group

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National Cancer Advisory Board Cancer Centers Working Group

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Members Frederick Appelbaum, M.D. Executive Vice President and Deputy Director Fred Hutchinson Cancer Research Center Seattle, WA	Craig B. Thompson, M.D. President and Chief Executive Officer Memorial Sloan-Kettering Cancer Center New York, NY
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Stanton L. Gerson, M.D. Director Case Comprehensive Cancer Center Case Western University Cleveland, OH	**Committee Management Officer** Ms. Grace Tato Division of Extramural Activities National Cancer Institute, NIH Bethesda, MD
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NCAB Charge to the Cancer Centers *Ad Hoc* Working Group (WG)

- Assess whether current funding guidelines for NCI-designated Cancer Centers (“Centers”) are appropriate and sufficient
  - if not, what aspects might be changed?
- Provide appropriate guidance on policies and metrics relevant to allocation of funds to Centers in a time of fiscal stringency

2013 Guideline Amendments

- CCSG awards ≥$6 million capped at current direct costs
- CCSG awards of <$6 million can request increase of 10% or $1,000,000, whichever is greater
- New centers can request awards ≤$1 million

Background

- The Cancer Centers Program is the envy of the world.
- In few if any other countries is there same commitment to excellence in multi-disciplinary cancer research and promotion of translational science that reduces cancer burden
- Now funded >forty years, brings enormous benefits to health of Americans.
- Centers are a major platform for advancing national priorities in cancer research
  - investigators in centers hold majority of extramural NCI funding
- Rigorous review standards make designation meaningful and prestigious
  - imprimatur that leverages other sources of support
- CCSG award provides essential support for infrastructure spanning spectrum of cancer research.

Overall Goal

- To consider funding policies for NCI-designated Cancer Centers, and if appropriate, recommend changes.

The Problem

- NCI leadership and Board recognized need to examine complex historical funding patterns that influenced current P30 Cancer Center Support Grant (CCSG) awards
  - assess potential disparities and consider whether alternative approaches should be explored

Questions from Dr. Varmus to WG

- Are the 2012 interim funding guidelines appropriate and sufficient to counter concerns about current distribution?
- Should we
  - change the 'cap'?
  - launch new centers with larger or smaller budgets?
  - change allowable rate of increase?
- Are there better methods for making funding decisions?
  - if so, what metrics should be used and how much consideration should be given to ways in which core funds are used?
- Are there ways to make budgeting more flexible, without increasing base budget?
  - through supplements or cooperative agreements?
  - appropriate use of these alternative resources?

Methods

- WG included ten members from diverse cancer centers and from private sector
- Met six times over one year, heard presentations from NCI leadership, and reviewed historical and current funding policies and approaches
- Drew several major conclusions
- Discussed multiple possible approaches, including various funding models
- Aligned on recommendations

Conclusions

- Significant disparities exist in size of CCSG awards, often due to factors other than merit
  - Longevity, size of NCI budget and competitors in year of application, prior performance
- Interim funding approach in 2012 CCSG Guidelines manages award expectations and retains a flat budget
  - but perpetuates disparities
- Centers differ in type, organizational structure, and environmental factors that affect importance of specific CCSG components
- Centers should be evaluated on what they do and how well they do it
  - impact of science emerging from the center and how that was enabled by CCSG should be paramount
- Components of CCSG process could be optimized to decrease administrative burden, increase flexible use of funds, and stress most significant science
- Underperforming Centers should be carefully reviewed; cessation of funding should be considered

Added Complexity – Supply and Demand

- NCI funding has decreased and may remain flat or decrease further in coming years
- There is continuing interest from universities in attaining NCI-designation for their cancer center
- NCI must be responsive to imperatives to support geographically distributed centers and accessibility for underserved populations
- CCSG awards are rarely terminated
- As a result, number of centers continues to grow and budget continues to be stretched.

We Reached Consensus

- The Working Group then discussed approaches to address disparities in funding.
- After review of several example models, a consensus emerged on the following recommendations:

Recommendations

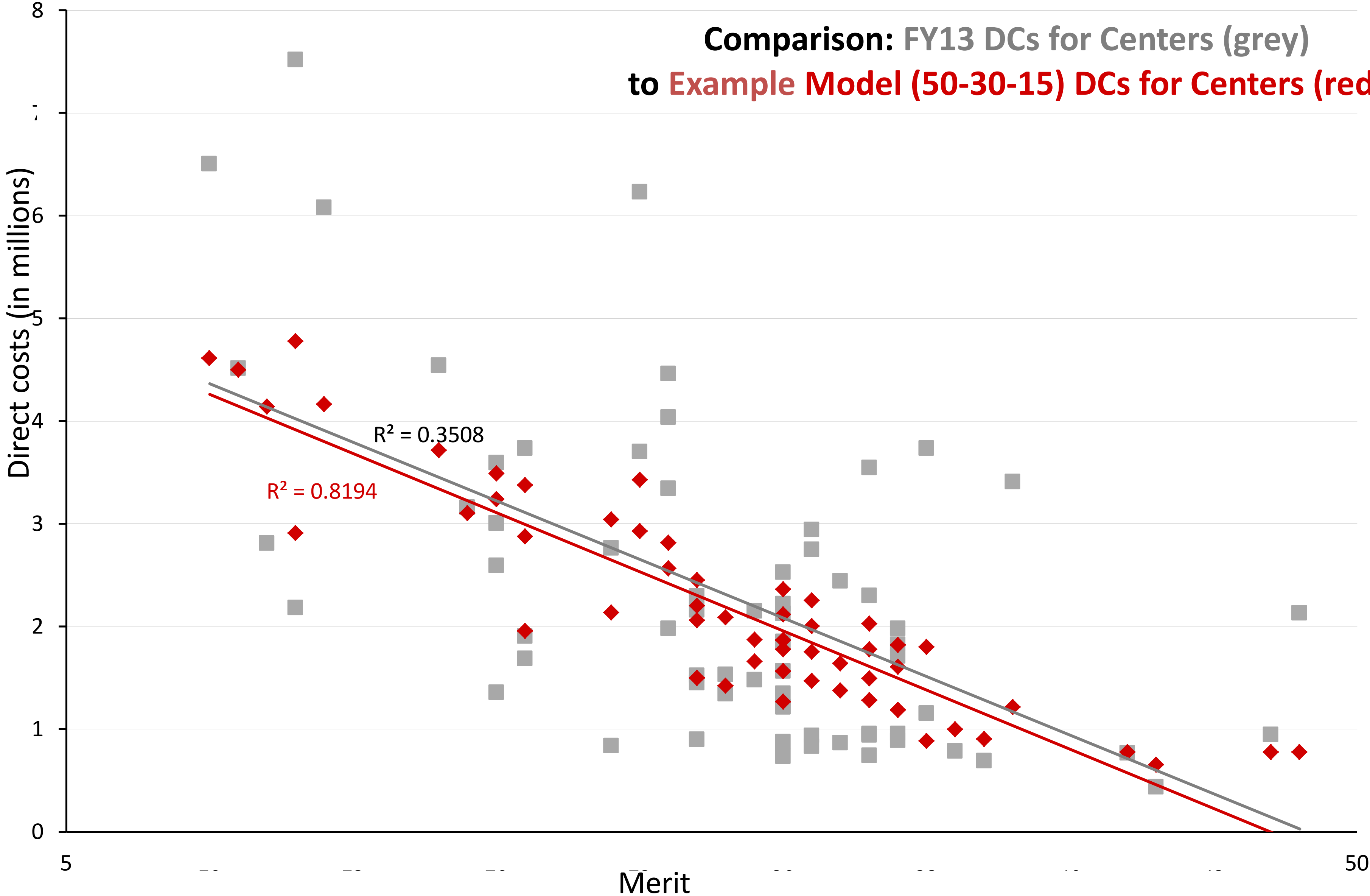
1. CCSG funding should be comprised of three components
   - base award
   - multipliers of the base predicated on merit and size
   - possible supplement
2. Center Administrators should be involved in planning for implementation of new approach
3. Proposed changes should be framed in context of NCI and Centers' mission.
   - timeline and mode of communicating changes will help determine acceptability

RECOMMENDATION 1: CCSG FUNDING SHOULD BE COMPRISED OF THREE COMPONENTS: A BASE AWARD; MULTIPLIERS OF THE BASE, PREDICATED ON MERIT AND SIZE; AND A POSSIBLE SUPPLEMENT.

Recommendation #1

- Base award
  - should vary by Center type (basic, clinical, comprehensive), based on CCSG requirements (50%[1.])
  - at renewal, a predetermined base award applicable to all Centers of same type should be starting point.
- Merit funding
  - calculated on a linear scale as a percent multiplier of base award, using impact score (30%[1.])
    - Impact scores of low merit may result in reduction of the base award
- Size
  - calculated as a percent multiplier of base award, using figure for total peer-reviewed funding reported by the center (15%[1.])
- [Supplements]
  - based on review of proposed highly innovative and impactful programs, cores, new initiatives, and consistency with NCI priorities (5%[1.])]

[1.] **Refers to direct cost budget of the Centers Program; not individual CCSG grant award.**



Comparison: FY13 DCs for Centers (grey)
to Example Model (50-30-15) DCs for Centers (red)
Direct costs (in millions)
Merit
R² = 0.3508
R² = 0.8194
8
6
5
4
3
2
1
0
5
50
FY13 DCs awarded
Model 1
Linear (FY13 DCs awarded)
Linear (Model 1)

Understanding the “Splits”

- 50-30-15 split (leaving aside the 5%) refers to how Centers Program divides up their total dollars in direct cost budget for CCSG Awards
  - e.g., if $160 M available for direct costs, allotments would be:
    - $80M to cover base awards
    - $48m to cover merit component
    - $24 M to cover size/complexity component

Understanding the Individual Awards

- Individual CCSG awards won't necessarily have same proportions
- Distribution in individual awards will vary based on center type, performance, size, etc.
  - e.g., a large (Category 4) Comprehensive Cancer Center with impact score 10 might receive $4.2M
    - pre-determined base award of $1.2M (29%)
    - merit award of $2.4 M (57%)
    - size/complexity award of $600K (14%)
- Base will generally be a smaller proportion of the award, as center gets better and bigger.

RECOMMENDATION 2: CANCER CENTER ADMINISTRATORS SHOULD BE INVOLVED IN THE PLANNING FOR IMPLEMENTATION OF THE NEW APPROACH.

Recommendation #2

- Within their centers, administrators will need to evaluate, prepare for, and communicate potential changes, particularly where there are reductions
- Will need to communicate with NCI Centers program staff on implications of funding changes, positive or negative

RECOMMENDATION 3: PROPOSED CHANGES SHOULD BE FRAMED IN THE CONTEXT OF THE NCI AND CENTERS MISSION. THE TIMELINE AND MODE OF COMMUNICATING CHANGES WILL DETERMINE THEIR ACCEPTABILITY

Recommendation #3

- Timeline and mode of communicating changes will help determine their acceptability
- Centers should be given the opportunity for input on implementation plans

Anticipated Results

- Addresses problem of accretion since each renewal will re-compete for a predetermined base award applicable to all centers of the same type
  - Mitigates problem of historical inequities
- Negates need for caps, since playing field will be leveled by formula-based budgeting

Some Potential Problems	Mitigations
Does not fully address variations in size of NCI budget in a given year of grant renewal	Should help minimize variations over time, and establish greater fairness
May create administrative and fiscal hardships for centers and parent institutions; especially for matrix Centers	Determine potential impact through Center Administrators and recommend potential phase-ins, e.g., slow phase vs. a one-time tap or graduated tax, or an annual adjustment to awards Additional budget modeling will be conducted by NCI and by individual centers based on hypothetical outcomes
Does not address whether this type of funding will result in the overall good for cancer research and ultimately for cancer patients	Careful monitoring of the impact of over time
May generate alarm among Centers and their constituents, particularly in initial implementation phase	Involve Center Administrators, Directors and advocates in implementation and communication plans

Summary

- Exceptional work by members of WG to gain alignment on the problems and consensus on recommendations
- Recommendations make significant improvements to current state
- Methods of communication will help determine acceptability
- Highlights importance of transparency, fairness, input, and “fine-tuning”
- Frame within mission of NCI and national cancer program, not a reaction to difficult budget times or redistribution for political purposes.
- Emphasize remarkable success of the Cancer Centers program, its overall importance and impact, and that these changes are designed to enhance this national treasure.

BACKUP

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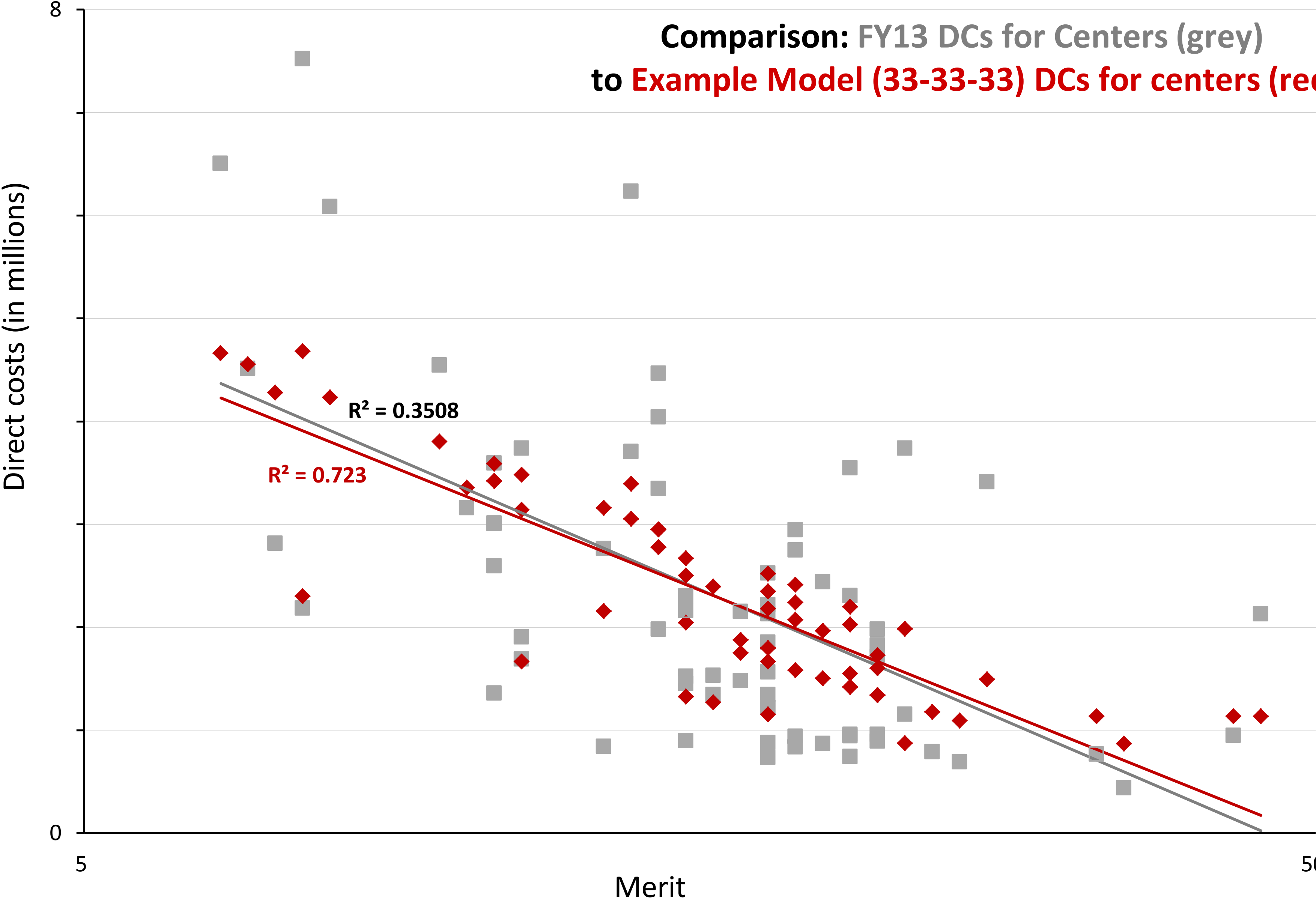
Potential Problems

- Does not fully address variations of size of NCI budget in a given year of grant renewal
  - but should help minimize impact over time
- May create administrative and fiscal hardships for centers and parent institutions
  - particularly for large matrix-type Centers,
- Does not address whether this type of funding will result in the overall good for cancer research and ultimately for cancer patients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FY13 DCs awarded
Model 2
Linear (FY13 DCs awarded)
Linear (Model 2)

HYPOTHETICAL FUNDING CALCULATION USING BASE AWARD + MULTIPLIERS FOR MERIT AND SIZE (FOR EXAMPLE PURPOSES ONLY, ALL FIGURES IN DIRECT COSTS)

Center Type	Basic (7)	Clinical (20)	Comprehensive (41)
Base Award	$850,000	$1,050,000	$1,250,000
Maximum Merit Award (percent multiplier of base award, declines linearly with increasing impact score)	$1,844,500	$2,278,500	$2,712,500
Maximum Size Award (percent multiplier of base award, using quintile of peer-reviewed funding)	$782,000	$966,000	$1,050,000
Maximum possible award	$3,476,500	$4,294,500	$5,012,500