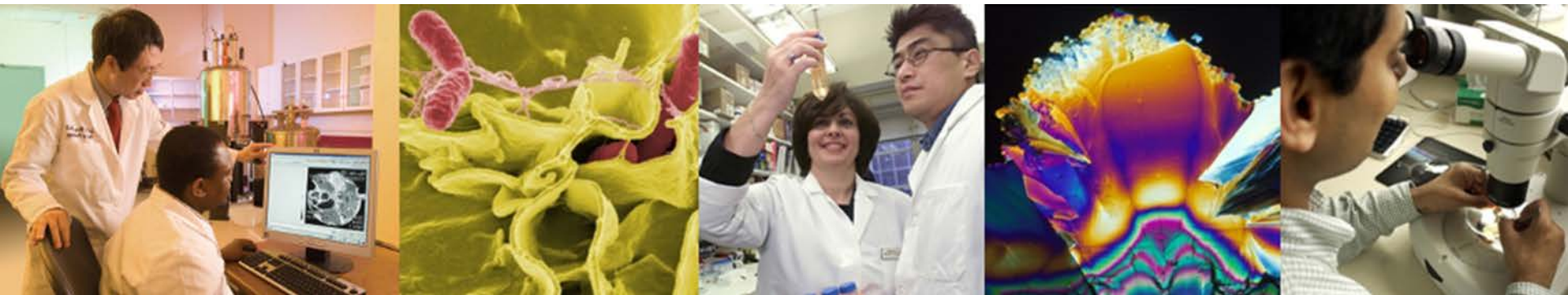


NIH-Wide Strategic Plan

Meeting with ACD

July 20, 2015



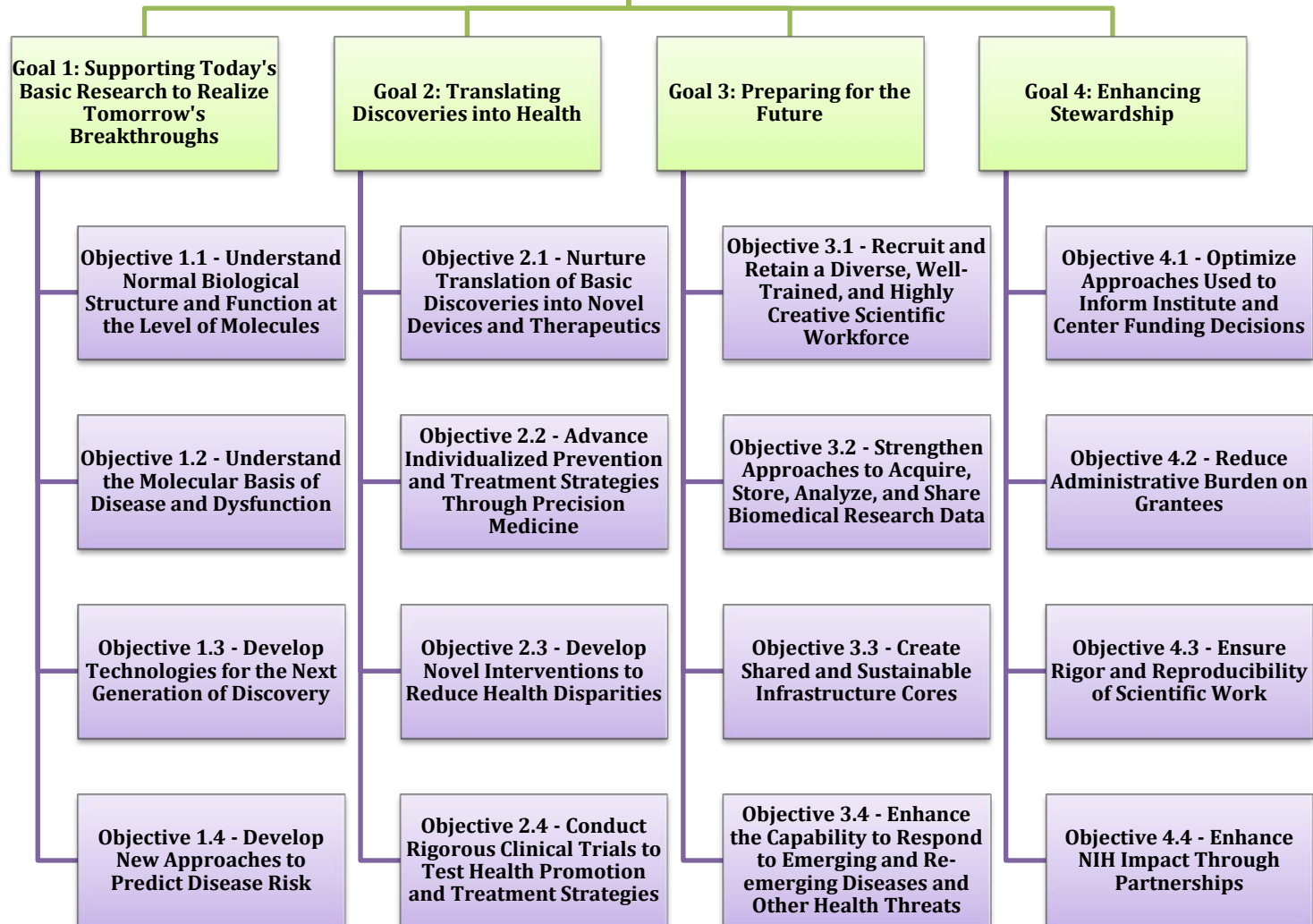
Lawrence A. Tabak, DDS, PhD
Principal Deputy Director, NIH
Department of Health and Human Services



The Original Draft Framework

Overarching Goal: *Support research in pursuit of fundamental knowledge about the nature and behavior of living systems, and the application of that knowledge to extend healthy life and reduce illness and disability*

Highest Trans-NIH Priority Areas: *Cancer, Infectious and Immunological Diseases, Cardiovascular Disease, Diabetes and Obesity, Brain Diseases and Disorders, Human Development, Chronic Diseases and Conditions*



Feedback from ACD

- Presented to the ACD on June 11
 - The draft framework did not resonate with the group
- It was emphasized that we should:
 - Keep the document short (10 pages) – therefore a 4X4 matrix would yield a document that was too long
 - Make it inspirational and forward looking
 - Incorporate cross cutting themes – they felt we relied too much on traditional “organ based” disease paradigms
 - Emphasize flexibility and nimbleness

The ACD did appear to resonate with what the strategic plan should and should not be

- The strategic plan should clearly articulate the highest priorities of the NIH overall
- The strategic plan should describe how the NIH will achieve the highest priorities
- The strategic plan should be a living document that will require refinement throughout its lifecycle
- The strategic plan should not describe all the many important things that NIH does and will do in the future
- The strategic plan should not address priorities of the individual Institutes and Centers (ICs) since each IC has their own strategic plan (that will each be referenced in the executive summary of the strategic plan)

The New Draft Framework

Preamble

- Mission of NIH
- Unique Moment of Exceptional Opportunity in Biomedical Research
- Current NIH-Supported Research Landscape
 - *Basic and Applied – a Continuum*
 - *Extramural and Intramural*
 - *Institutes and Centers with Their Own Strategic Plans*
 - *Common Fund*
- Constraints Confronting the Community in the Face of Lost Purchasing Power

Fundamental Science

- Basic Science Is the Foundation for Progress
- Consequences of Basic Science Discoveries are Often Unpredictable
- Leaps in Technology Often Catalyze Major Advances
- Examples
 - *CRISPR-cas*
 - *Cryo-EM*
 - *BRAIN*
 - *Microbiome*
 - *Single Cell Biology*

Health Promotion and

Disease Prevention

- Importance of Studying Healthy Individuals
- Advances in Early Diagnosis/Detection
- Evidence-Based Elimination of Health Disparities
- Examples
 - *PMI Cohort*
 - *Tobacco/Opioid Addiction*
 - *Influenza Vaccine*

Treatments and Cures

- Unprecedented Opportunities on the Basis of Molecular Knowledge
- Breakdown of Traditional Disease Boundaries
- Breakthroughs Need Partnerships and Often Come from Unexpected Directions
- Examples
 - *New Drug Targets*
 - *Alzheimer's*
 - *Cancer*
 - *AMR*
 - *Gene Therapy*
 - *Cell-Based Therapies*
 - *Cure for HIV/AIDS*
 - *Drug Repurposing*
 - *AMP*

Setting NIH Priorities

- Incorporate Disease Burden as an Important, but Not the Only, Factor
- Foster Scientific Opportunity; Need for Nimbleness
- Advance Research Opportunities Presented by Rare Diseases
- Consider the Value of Permanently Eradicating a Pandemic
 - *HIV/AIDS*

Enhancing Stewardship

- Strengthen and Sustain a Diverse Workforce
- Encourage Innovation
- Optimize Approaches to Inform Funding Decisions
- Enhance Impact through Partnerships
- Ensure Rigor and Reproducibility
- Reduce Administrative Burden

Draft Framework

Preamble

- Mission of NIH
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Draft Framework (cont'd)

■ Areas of Opportunity that Apply Across Biomedicine

Fundamental Science	Health Promotion and Disease Prevention	Treatments and Cures
<ul style="list-style-type: none">• Basic Science Is the Foundation for Progress• Consequences of Basic Science Discoveries are Often Unpredictable• Leaps in Technology Often Catalyze Major Advances• Examples<ul style="list-style-type: none">• <i>CRISPR-cas</i>• <i>Cryo-EM</i>• <i>BRAIN</i>• <i>Microbiome</i>• <i>Single Cell Biology</i>	<ul style="list-style-type: none">• Importance of Studying Healthy Individuals• Advances in Early Diagnosis/Detection• Evidence-Based Elimination of Health Disparities• Examples<ul style="list-style-type: none">• <i>PMI Cohort</i>• <i>Tobacco/Opioid Addiction</i>• <i>Influenza Vaccine</i>	<ul style="list-style-type: none">• Unprecedented Opportunities on the Basis of Molecular Knowledge• Breakdown of Traditional Disease Boundaries• Breakthroughs Need Partnerships and Often Come from Unexpected Directions• Examples<ul style="list-style-type: none">• <i>New Drug Targets</i>• <i>Alzheimer's</i>• <i>Cancer</i>• <i>AMR</i>• <i>Gene Therapy</i>• <i>Cell-Based Therapies</i>• <i>Cure for HIV/AIDS</i>• <i>Drug Repurposing</i>• <i>AMP</i>

Draft Framework (cont'd)

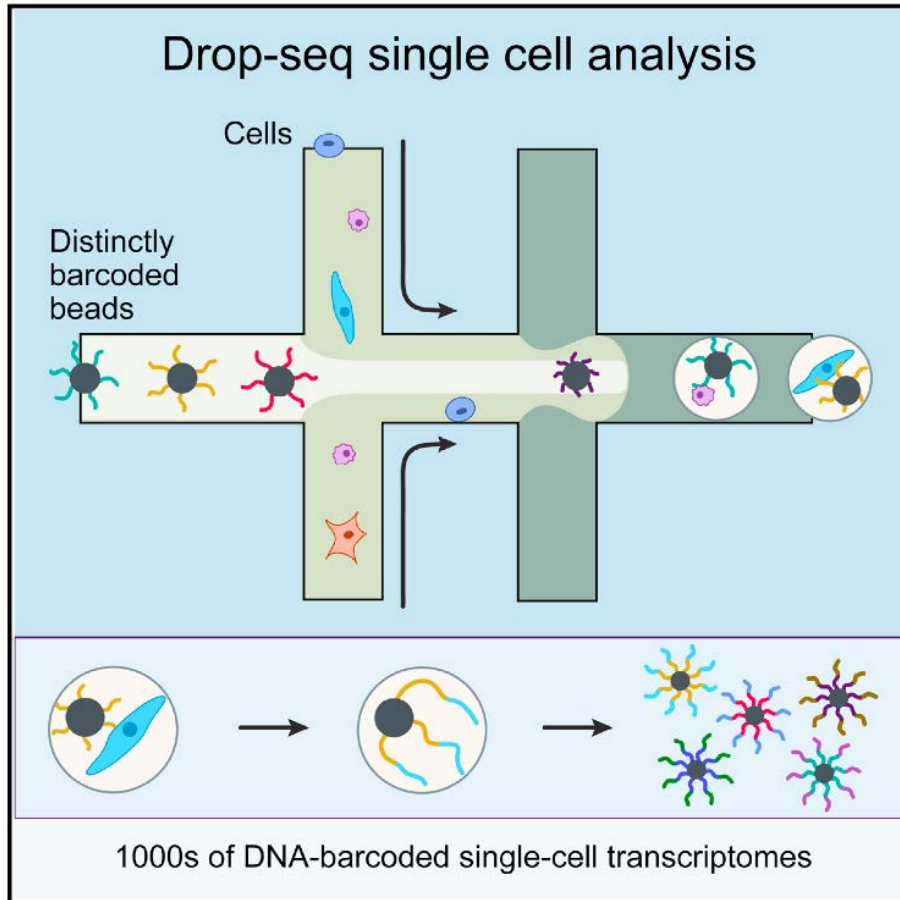
- For each of the Areas of Opportunity:
 - We will have a succinct description of emergent opportunities (and what NIH needs to realize the opportunities)
 - We will also highlight specific examples of recent breakthroughs – “Research Spotlights”

Draft Framework (cont'd)

■ Areas of Opportunity that Apply Across Biomedicine

Fundamental Science	Health Promotion and Disease Prevention	Treatments and Cures
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Research “Spotlights”



- Drop-seq single cell analysis* enables large-scale, highly parallel single-cell transcriptomics. Applying this analysis to cells in mouse retinal tissue revealed transcriptionally distinct cell populations along with molecular markers of each type.

*Macosko et al., Cell 161:1202- 1214, 2015.

<http://braininitiative.nih.gov>

<http://commonfund.nih.gov/Singlecell/index>

Draft Framework (cont'd)

- **Unifying Principles** (“Mission Priority Focus Areas”) – which will form the “Objectives” that must be accomplished to achieve Goals

Setting NIH Priorities

- Incorporate Disease Burden as an Important, but Not the Only, Factor
- Foster Scientific Opportunity; Need for Nimbleness
- Advance Research Opportunities Presented by Rare Diseases
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 - *HIV/AIDS*

Enhancing Stewardship

- Strengthen and Sustain a Diverse Workforce
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- Optimize Approaches to Inform Funding Decisions
- Enhance Impact through Partnerships
- Ensure Rigor and Reproducibility
- Reduce Administrative Burden

Draft Framework (cont'd)

- For each of the Unifying Principles we will have a description of the current status and/or emergent opportunities (and what NIH needs to realize the opportunities)
- We will also highlight specific examples of recent breakthroughs – “Stewardship Spotlights”

Stewardship “Spotlights”

The screenshot displays the NIH Common Fund website. At the top, a blue navigation bar includes the U.S. Department of Health & Human Services logo, the National Institutes of Health logo, and the Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI). Below this is a banner with the NIH logo, the text 'National Institutes of Health Office of Strategic Coordination - The Common Fund', and the tagline 'WE ACCELERATE DISCOVERY'. A green navigation bar contains links for HOME, PROGRAMS, RESEARCH FUNDING, NEWS & EVENTS, MULTIMEDIA, HIGHLIGHTS, ABOUT, and CONTACTS. A yellow banner below the navigation bar features the title 'Enhancing the Diversity of the NIH-Funded Workforce' and a 'Publication Search' box with a 'GO' button. Below the yellow banner is a row of tabs: OVERVIEW, WORKING GROUP MEMBERS, RESEARCH FUNDING, PUBLICATIONS/NEWS, and MEETING/ACTIVITIES. The 'OVERVIEW' tab is selected, showing a 'Program Snapshot' section. This section contains a paragraph describing the program's goal to promote diversity in the biomedical research workforce through a national collaborative effort. Below the paragraph is a 'Read more...' link. Further down, under the heading 'Program Initiatives:', there is a list of three initiatives: Building Infrastructure Leading to Diversity (BUILD), National Research Mentoring Network (NRMN), and Coordination and Evaluation Center (CEC).

U.S. Department of Health & Human Services | National Institutes of Health | Division of Program Coordination, Planning, and Strategic Initiatives (DPCPSI)

NIH National Institutes of Health
Office of Strategic Coordination - The Common Fund

WE ACCELERATE DISCOVERY

HOME PROGRAMS RESEARCH FUNDING NEWS & EVENTS MULTIMEDIA HIGHLIGHTS ABOUT CONTACTS

Enhancing the Diversity of the NIH-Funded Workforce

Publication Search GO

OVERVIEW WORKING GROUP MEMBERS RESEARCH FUNDING PUBLICATIONS/NEWS MEETING/ACTIVITIES

Program Snapshot

As one component of a broad, trans-NIH strategy to address the need to promote diversity in the biomedical research workforce, the Common Fund has established the **“Enhancing the Diversity of the NIH-Funded Workforce”** program. This program is a national collaborative through which the Diversity Program Consortium, in partnership with the NIH, will develop, implement, and evaluate innovative approaches to research training and mentoring, with the goal of engaging individuals from diverse backgrounds and helping them prepare for and succeed in biomedical research careers. It provides the opportunity for transformation of the biomedical research workforce through institution-wide and eventually nationwide implementation of successful training and mentoring strategies. The long-term goal is to enhance the NIH mission through a more diverse and robust workforce, attracting talented individuals from all population sectors.

[Read more...](#)

Program Initiatives:

- [Building Infrastructure Leading to Diversity \(BUILD\)](#)
- [National Research Mentoring Network \(NRMN\)](#)
- [Coordination and Evaluation Center \(CEC\)](#)

<http://commonfund.nih.gov/diversity/index>

Timeline

Activity	Timeframe
Assemble a subgroup of IC Directors (7-8) to develop the plan, informed by available DPCPSI framework	April-15
Discuss draft plan with IC Directors	Early June 2015
Present planning process to the ACD, requesting input and their help engaging the public	June 11-12
Call with HHS	July 10th
Call with ACD members	July 20th
Public comment period (i.e., RFI)	July/August 2015
Publish RFI	July 20th
Webinars	Early to Mid-August
Analyze and incorporate RFI feedback	Mid-August to September
Share with National Advisory Councils and gather feedback	September-15
Incorporate all feedback	October/November 2015
Brief key Hill staff/members	Fall 2015 (late Oct/early Nov)
Distribute plan to ACD members	By November 23
Present at December ACD meeting	December 10-11, 2015
Send to Congress	Mid-December 2015



NIH...

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Turning Discovery Into Health

