Developing a National Agenda for Vision Research

Richard Fisher, PhD
National Eye Institute
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Developing a National Agenda for Vision Research

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Office Program Planning and Analysis
National Eye Institute
National Institutes of Health
Departments in the President’s Cabinet

Health and Human Services
FY2012: $886 Billion

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<tr>
<td>NIH</td>
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<td>ACF</td>
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15 Departments:
Agriculture
Commerce
Defense
Education
Energy
Health and Human Services
Homeland Security
Housing and Urban Development
Interior
Justice
Labor
State
Transportation
Treasury
Veterans Affairs
Budgets

Health and Human Services
FY2012: $886 Billion

NIH:
FY2012: $30,631,986

NEI:
FY2012: $702,512,162
National Eye Institute

Board of Scientific Counselors

Office of the Director
Program Planning
Budget
Communications
Administration

National Advisory Eye Council

Intramural Research

Epidemiology & Clinical Applications

Extramural Research

IRP ~ 10%
NEI Program Planning - History


NEI (Sieving): 2004
NEI Program Planning 2011-12

1) Panel Reports
2) Audacious Goals
3) Implementation

Retinal Diseases
Corneal Diseases
Lens and Cataract
Glaucoma and Optic Neuropathies
Strabismus, Amblyopia, and Visual Processing
Low Vision and Blindness Rehabilitation
NEI Program Planning 2011-12

Overarching Questions:

• Where are we today?

• What are the needs, gaps, and opportunities in vision research?

Our Aim:

Create a meaningful document to help the NEI identify scientific opportunities, fund the best science, properly direct resources, and attract and train the best and the brightest to vision research
NEI Program Panels

Introduction

Highlights of recent progress

Needs, gaps, and opportunities
Vision Research: Needs, Gaps, and Opportunities
National Advisory Eye Council

Recommendation: 3 Phases

1) Panel Reports – State-of-the-science and opportunities
2) Audacious Goals
3) Establish Priorities – Implementation

Phase 2 → Audacious Goals above and beyond

*Vision Research: Needs, Gap, and Opportunities* to convey the excitement of so many new possibilities
3 Phases

1) Panel Reports – State-of-the-science and opportunities
2) Audacious Goals
3) Priorities Established – Implementation

bold  daring  extremely original

without restriction to prior ideas
Phase 2: Purpose

Stimulate innovative thinking toward developing a National Vision Research Agenda.

Help set vision research priorities
Phase 2: Objectives

- Inclusive process
- Engage the wide community of vision researchers and others beyond typical experienced NIH funded investigators
- Panel reports: springboard
- Fixed # Audacious Goals
- Winnowing from many ideas
- Transparent
- Energize the community with an exciting process!
Historical Examples

- 1993: Develop gene therapy to treat an inherited retinal degeneration to cure patients in less than 10 years.

- 1990: Develop imaging techniques to view the microscopic structures of a patient’s eye in order to follow the course of disease in real time.

- 1986: DOE announced the Human Genome Initiative and with the NIH the HGP officially began in 1990.

- 1961: Man on the moon in 10 years
Overall Process

- Cast a wide net to capture ideas
- Widely publicize NEI Challenge
- 1-page Audacious Concept
- Concepts triaged, reviewed, and selected (<20)
- $$\text{Cash prize awarded to authors of selected concepts}$$
- Discussed at an NEI Audacious Goals meeting
- Report: Most compelling AG with rationale
- AG published on NEI website with Vision Research: Needs, Gaps and Opportunities
<table>
<thead>
<tr>
<th>Timeframe</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>Summer</td>
<td>Public Release of Challenge</td>
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<tr>
<td>Fall</td>
<td>Concept Competition Closes</td>
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<tr>
<td>December</td>
<td>Audacious Concepts Selected</td>
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<td>Feb-Mar 2013</td>
<td>NEI Audacious Goals meeting</td>
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<td>Spring 2013</td>
<td>Consideration by NAEC and Implementation</td>
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Questions?

nei.nih.gov