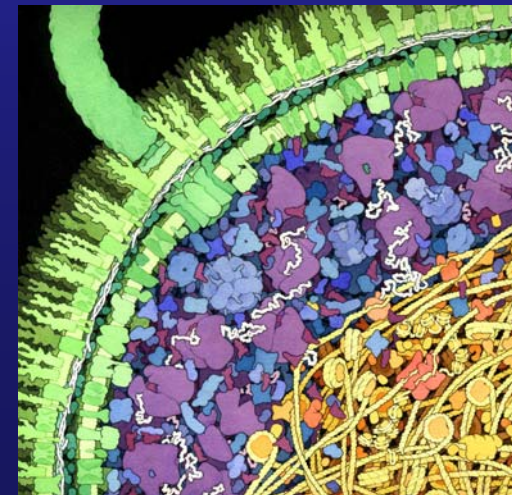




NANOMEDICINE ROADMAP INITIATIVE

Project Launch Meeting

NIH, Masur Auditorium, Bldg 10, Bethesda, MD
Tuesday, May 4, 2004





Nanomedicine Roadmap Initiative

Session 4: Strategy for NIH Funding of Nanomedicine Development Centers

Richard S. Fisher, PhD
National Eye Institute



So Far, Today

- **Began with the emerging NIH vision for Nanomedicine Centers**
- **Session 1**
 - 4 perspectives of the type of expertise that could contribute to a Center
- **Session 2**
 - Open discussion of other scientific targets that could be a focus of a Center
- **Session 3**
 - A panel discussion of some strategies for creating research teams
- **Session 4**
 - Strategy for NIH Funding of Nanomedicine Development Centers

NIH Nanomedicine Development Centers

➤ Today's Meeting

Novel NIH Process – Not business as usual
Flexible Research Authority

3 Steps for Applicants

Step 1: Short “white paper” (CDM)
Planning Award (CDA)

Step 2: More Extensive Plan (CDP)
Meeting of CDP Investigators

Step 3: Nanomedicine Centers Application

➤ September , 2005 Initial Centers Funded

You Must Participate in Steps 1 and 2 to be Eligible to Apply for a Center

Step 1: Concept Development Memo (CDM)

Step 2: Concept Development Plan (CDP)

Step 3: Nanomedicine Center Application

The Process and Timeline

➤ **May 2004** **Today - NIH guide Announcement for
Concept Development Memo (CDM)**

➤ **July 26** **Step 1: CDM Due**

Short “white paper”

≤ 5 pages, no appendices, self-contained

Broad scientific vision, approaches, etc

Team expertise

Center structure

Budget and Justification for planning funds

Travel, small workshops, etc.

≤ \$50,000 Direct Costs

September , 2005 Initial Centers Funded

The Process and Timeline

May, 2004

RFA published in NIH Guide

July 26, 2004

Step 1: Concept Development Memo Due (CDM)

➤ **Aug/Sept, 2004** **Review of CDM's**

Administrative Review

Panel of NIH staff and outside scientific consultants

- justification of model systems
- tools to be applied and developed
- clarity of vision and shortcomings of current capabilities
- approach to generalizing results
- anticipated design principles
- approach to integrating with ongoing efforts and existing resources
- analysis of collaborative needs and interactions

September , 2005 **Initial Centers Funded**

The Process and Timeline

May, 2004

RFA published in NIH Guide

July 26

Step 1: Concept Development Memo Due (CDM)

Aug/Sept

Review of CDM's

➤ **Sept 30, 2004** **Concept Development Awards (CDA) Issued**

- 6 month award for developing concepts, teams, and other planning
- Funds available for about 20 CDAs
- Write a Concept Development Plan (CDP)
- Travel of key personnel to Investigator Meeting, March 2005

September , 2005 **Initial Centers Funded**

The Process and Timeline

May, 2004	RFA published in NIH Guide
July 26	Step 1: Concept Development Memo Due (CDM)
Aug-Sept	Review of CDM's
Sept 30	Concept Development Awards (CDA) Issued

➤ **Feb 15, 2005 Step 2: Concept Development Plan Due (CDP)**

More extensive Center plan

2 - 3 page public abstract

15 - 20 page document that describes:

- a vision for the Center
- specific scientific and technical approaches
- a structure for the Center and the Network

September , 2005 Initial Centers Funded

The Process and Timeline

May, 2004

RFA published in NIH Guide

July 26

Step 1: Concept Development Memo Due (CDM)

Aug-Sept

Review of CDM's

Sept 30

Concept Development Awards (CDA) Issued

Feb 15, 2005

Step 2: Concept Development Plan Due (CDP)

➤ **March, 2005 CDP Investigator Meeting with NIH Staff**

PI and co-investigators welcome

Discussion of public CDP topics

Foster Collaborations among Applicants

September , 2005 Initial Centers Funded

Nanomedicine Roadmap Initiative
Project Launch Meeting May 4, 2004



The Process and Timeline

May, 2004

RFA published in NIH Guide

July 26

Step 1: Concept Development Memo Due (CDM)

Aug-Sept

Review of CDM's

Sept 30

Concept Development Awards (CDA) Issued

Feb 15, 2005

Step 2: Concept Development Plan Due (CDP)

March

CDP Investigator Meeting

➤ **April, 2005**

Nanomedicine Centers RFA Issued

Including Concepts, topics and Structures from CDPs

➤ **July, 2005**

Step 3: Centers Applications Due

September, 2005 Initial Centers Funded

Summary - Process and Timeline

May, 2004

RFA published in NIH Guide

July 26

Step 1: Concept Development Memo Due (CDM)

Aug-Sept

Review of CDM's

Sept 30

Concept Development Awards (CDA) Issued

Feb 15, 2005

Step 2: Concept Development Plan Due (CDP)

March

CDP Investigator Meeting

April

Nanomedicine Centers RFA Issued

July

Step 3: Centers Applications Due

- Only Teams who receive a CDA may submit a CDP
- Only Teams who submit a CDP may apply for a
Nanomedicine Development Center

September 2005 Initial Centers Funded



Nanomedicine Center Concept Development Awards

www.nih.gov

Select: NIH Roadmap
and then: Nanomedicine

or Search: NIH Guide

Nanomedicine Roadmap Implementation Working Group

Co-chairs: Jeffery Schloss, PhD; NHGRI
Paul Sieving, MD, PhD; NEI

John Bowers, PhD; CSR

Dennis Buxton, PhD; NHLBI

Richard Fisher, PhD; NEI

Daniel Gallahan, PhD; NCI

William Heetderks, MD; NIBIB

Eleni Kousvelari, DDS, DSc; NIDCR

Catherine Lewis, PhD; NIGMS

King Li, MD; CC

Joseph Pancrazio, PhD; NINDS

Karen Peterson, PhD; NIAAA

William Suk, PhD; NIEHS

Kuan Wang, PhD; NIAMS

Administrative Institute: National Eye Institute



Nanomedicine Development Centers

The NIH Vision

- Characterize quantitatively the physical and chemical properties of molecules and nanomachinery in cells
- Gain an understanding of the engineering principles used in living cells to "build" molecules, molecular complexes, organelles, cells, and tissues
- Use this knowledge of properties and design principles to develop new technologies, and engineer devices and hybrid structures, for repairing tissues as well as preventing and curing disease