

Funding Opportunities for Young Investigators From the NIH Perspective

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Call us if you need us

- Web site :
- <http://imaging.cancer.gov>
- My name is **Barbara Croft**

Purpose of today's session

- **Mine: to convey information about research funding, esp at NIH**
- **Yours: To get funding?**
- **Who are you?**
 - **Ever funded**
 - **Are you academic? Industry? Where?**
- **Why are you here? (Good place to spent Wednesday morning?)**

- **“Give a man a fish, feed him for a day; teach a man to fish, feed him for a life.”**

Some points for today

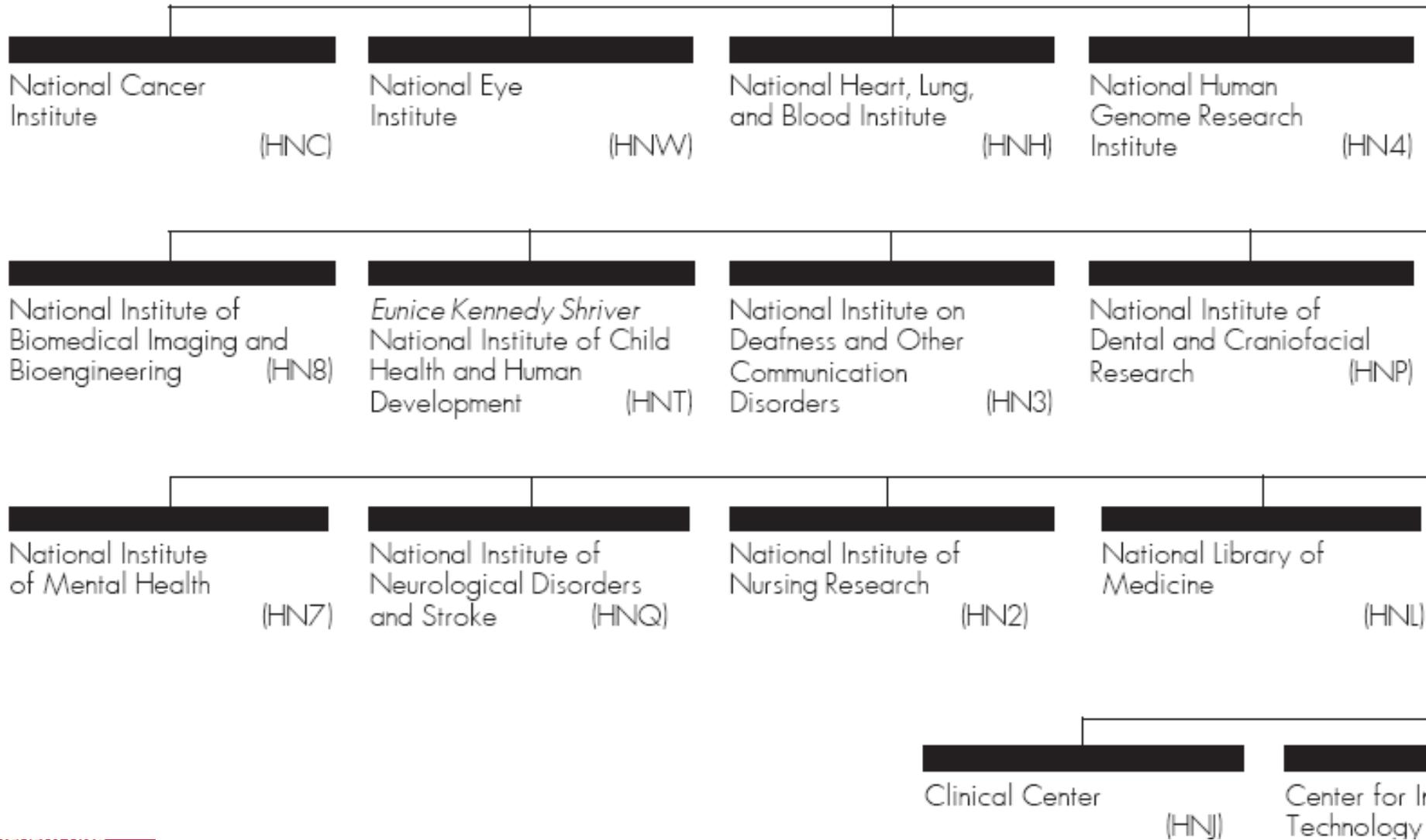
- **To outline the process to give insight**
- **To give sources of information on-line so you can help yourself**
- **To give human sources of information so you can e-mail or call when you need help.**

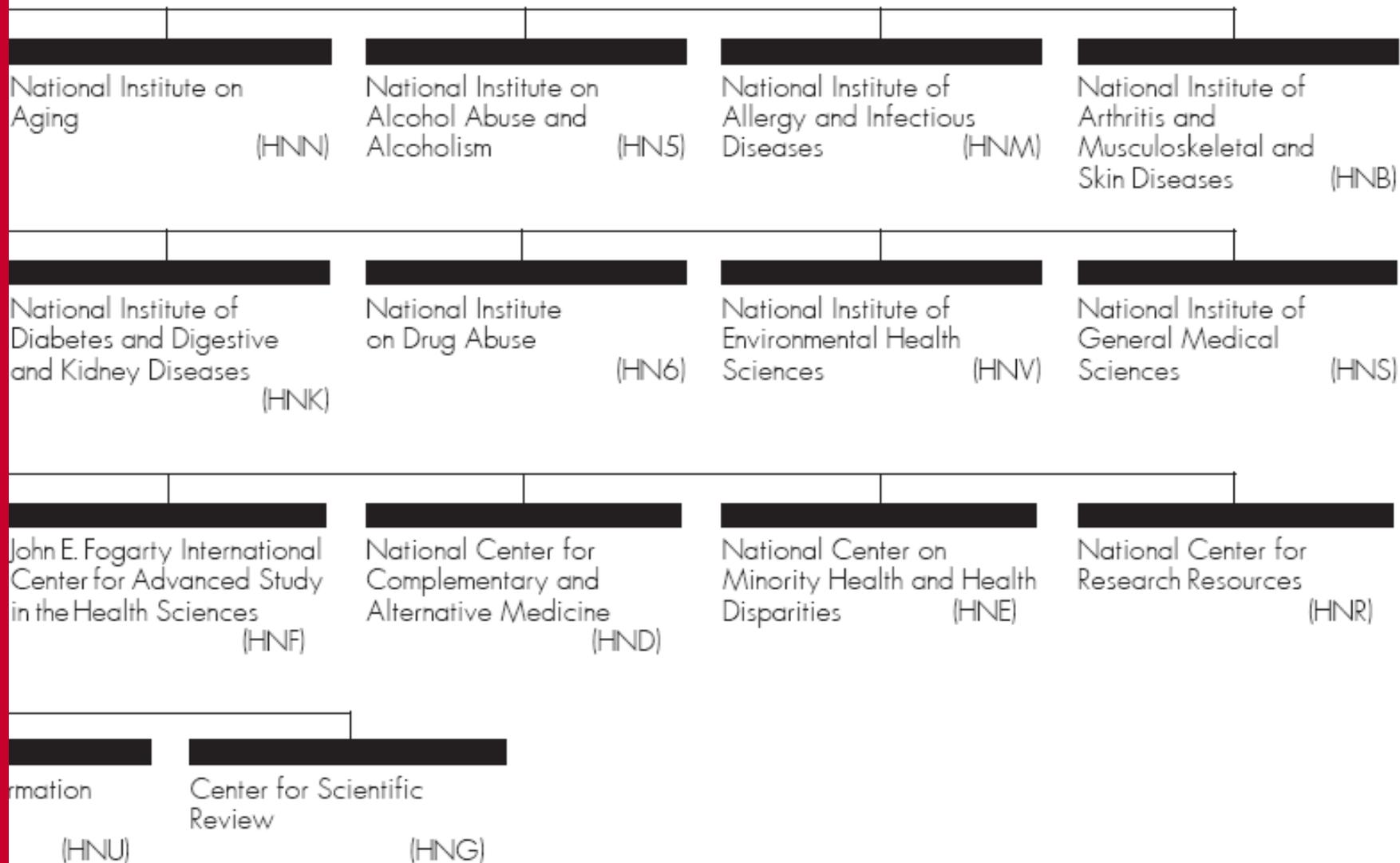
Outline

- Introducing you to me
- Purpose
- **Introducing me and the NIH to you**
- **Overview of the Grants Process up to NIH acceptance**
 - **New Investigators and where they fit in**
- **How to get an application ready and get started**
- **Q&A**

NIH: Quick Facts

- **Director**
Dr. Francis S Collins
- **Headquarters**
Bethesda, Maryland, USA
- **27 Institutes and Centers**
- **Employment**
Over 19,000 positions
- **Funding from Congress**
A little over \$30.6 Billion; 84% of which supports over 325,000 extramural scientists and research personnel at more than 3,000 institutions nationwide.





National Cancer Institute

NCI

NIDCD

NLM

NEI

NIDCR

CIT

NHLBI

NIDDK

CSR

NHGRI

NIDA

FIC

NIA

NIHES

NCCAM

NIAAA

NIGMS

NCRR

NIAID

NIMH

CC

NIAMS

NIMHD

OD

NIBIB

NINDS

NICHD

NINR

Example of Institute Organization

- **Use NCI as Example**
 - **Director**
 - **Divisions, with Division Directors**
 - **Programs with Associate Directors**
 - **Program Directors working with applicants and grantees**

**Division of Cancer Treatment and Diagnosis
(DCTD)**

**Cancer
Diagnosis
Program
(CDP)**

**Cancer
Imaging
Program
(CIP)**

**Develop-
mental
Therapeutics
Program
(DTP)**

**Cancer
Therapy
Evaluation
Program
(CTEP)**

**Radiation
Research
Program
(RRP)**

NIH \$30B



NCI

= \$5B

**Division of Cancer Treatment and Diagnosis
(DCTD)**

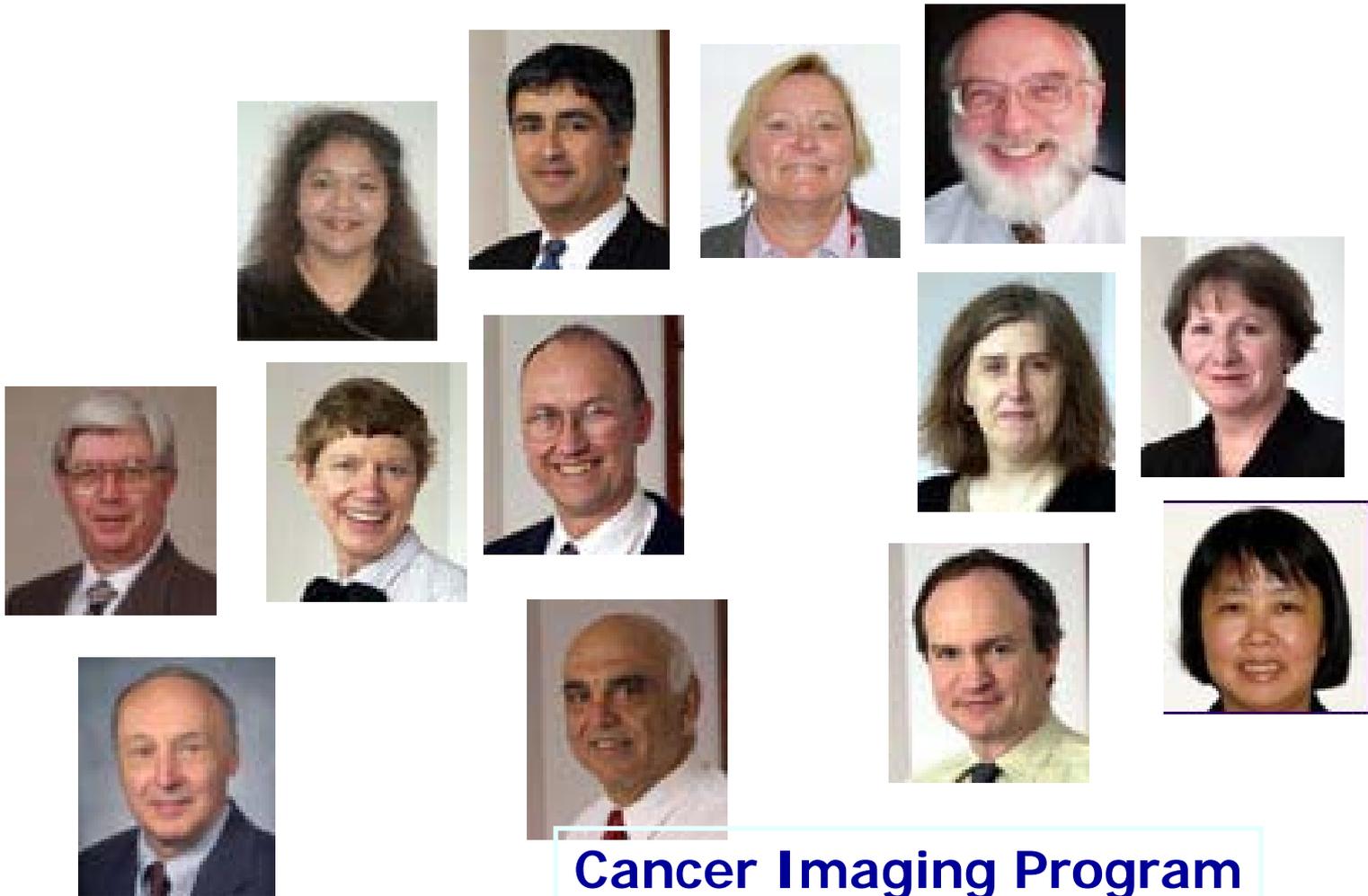
**Cancer
Diagnosis
Program
(CDP)**

**Cancer
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**Develop-
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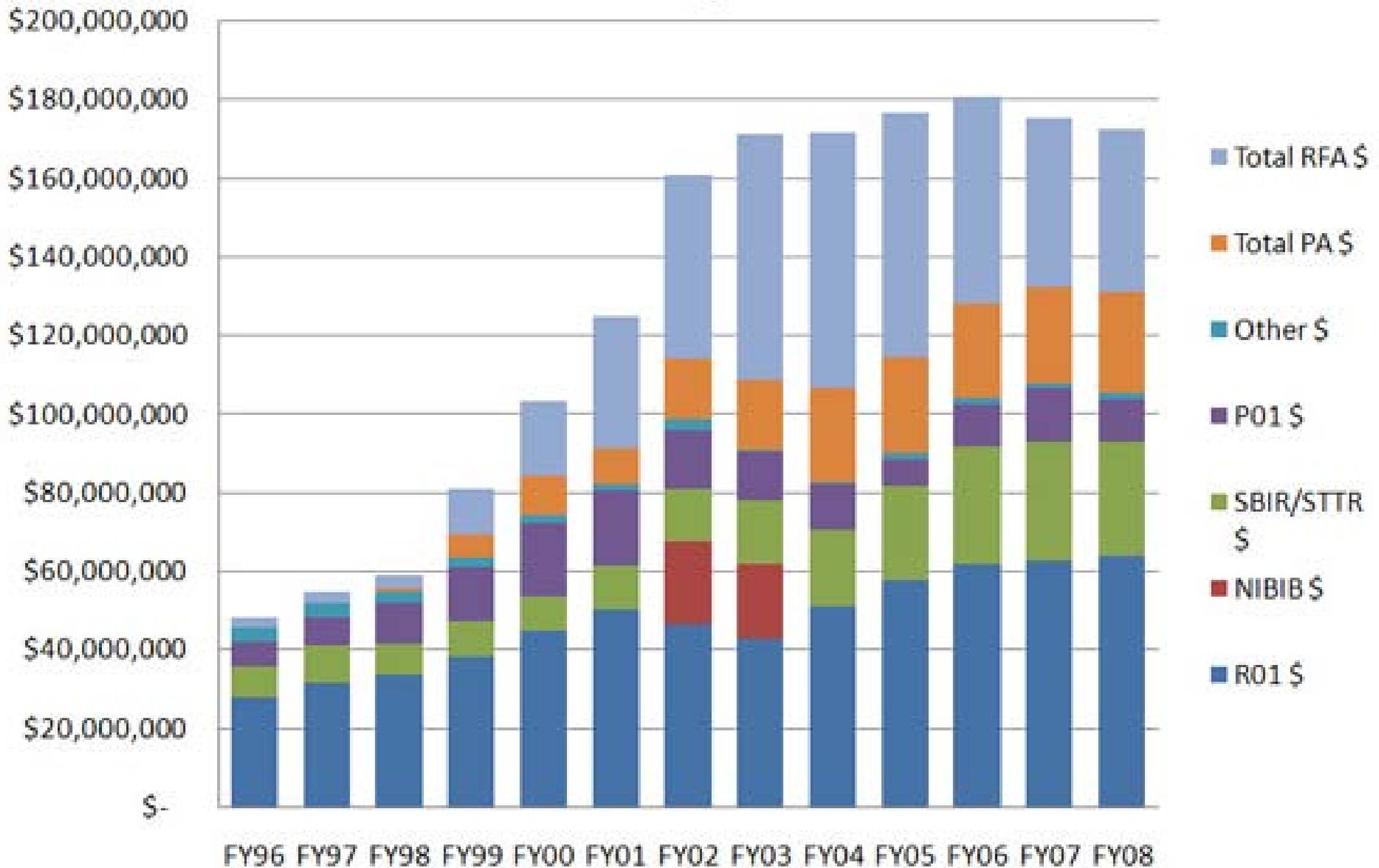
**Cancer
Therapy
Evaluation
Program
(CTEP)**

**Radiation
Research
Program
(RRP)**



**Cancer Imaging Program
Vision Statement:
Cancer Imaging –
Visualize the problem
and direct the solution**

CIP Grant Funding



Breakdown for 2008

➤ Type	Fund	No.
➤ R01	\$64M	174
➤ P01	\$11M	6
➤ Total PAs	\$25M	111
➤ Total RFAs	\$39M	37
➤ SBIR/STTR	\$29M	73
➤ Total	\$172M	224

Breakdown for 2010

➤ Type	Fund	No.
➤ R01	\$87M	216
➤ P01	\$16M	8
➤ R21	\$14M	70
➤ SBIR/STTR	Transferred	
➤ Total	\$167M	357

Information re Awarded Grants

- **RePORTER**
- **Research Portfolio Online Reporting Tools**
- **<http://projectreporter.nih.gov/reporter.cfm>**

Division Aims for Cancer Imaging Program

- **Imaging in the service of cancer therapeutic drug development**

Cancer Imaging Program Priorities

Molecular Imaging

**Clinical trials – methodology
and infrastructure**

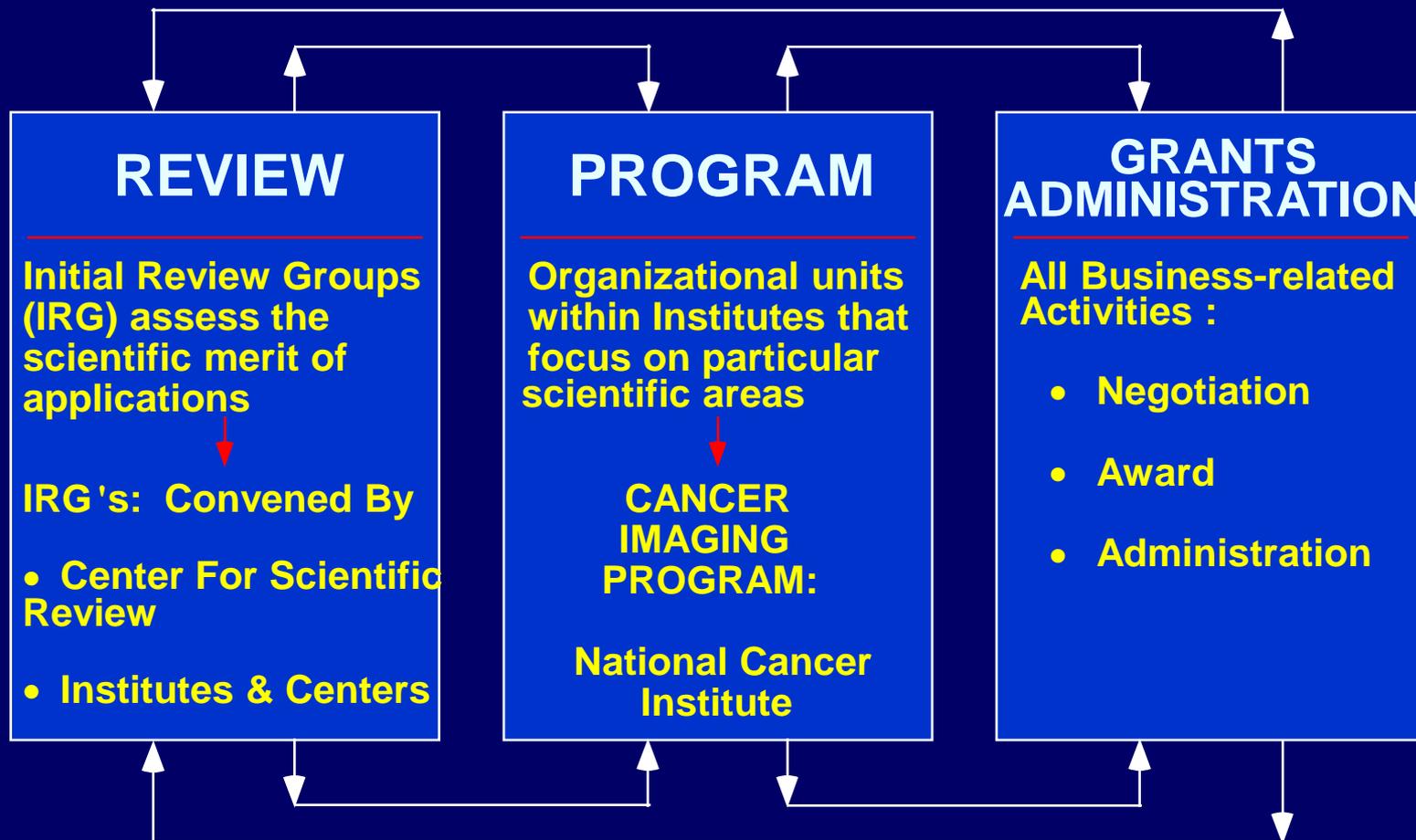
Image-guided interventions

Imaging informatics

Cancer Imaging Program Priorities

Imaging-based biomarkers
Nanotechnology for imaging
**Accelerated delivery of
imaging methods**
Imaging of pre-neoplasia

NIH Activities



The Grants Process

Investigator
Initiates a
Research Idea



Submits
Application



Receipt



Referral



Assigns
to an
Institute

HOW A RESEARCH GRANT IS AWARDED



Evaluates
Scientific
Merit

Evaluates
Program
Relevance

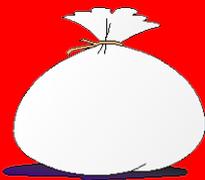


Advisory
Council



Recommends
Action

Allocation
of Funds



Other Funding Sources & Putting It All Together

Other federal funding sources

- NSF – basic science – <http://www.nsf.gov>
- DOD – Army Grants from USAMRMD have dried up; wait until the Iraq war ends to find more imaging money here.

Getting Started

- You need **PRELIMINARY DATA**
- Institutional grants – usually small but not too difficult to get – discuss possibilities when you are interviewing
- Work with a team to learn techniques and get data

Other funding sources – ways to start research projects and get preliminary data

➤ Association grants

- **SNM**
- **RSNA**
- **ACR**
- **AAPM**
- **SIR**
- **etc**

➤ Other not-for-profits

- **Charlotte Geyer Foundation – 1 yr to NIH grant applicants**
<http://www.charlottegeyer.org/>

Points re all funding sources

- **Read the announcement and the rules AND follow them**
- **Make sure your letters of recommendation are in order and actually say really good things**

Managing your research and your life

- **Passion – the research should be your passion**
- **Oooops! Family, friends, real life, regular work,...**
- **So PLAN AHEAD!!**
- **Really ponder what your passion is, then follow your muse**
- **Start EARLY!!**

National Cancer Institute



U.S. DEPARTMENT
OF HEALTH AND
HUMAN SERVICES

National Institutes
of Health

From idea to application

- **Develop the idea in discussions with a group**
- **Put it down in specific aims and hypotheses**
- **Rework and rework**
- **Decide how big your project is and take out the extraneous**
- **What level of application?**

Keep planning

- What kind of money, time, effort, people are you planning?
- Is this too complex? **SIMPLIFY!!**
- Write it all up and get many people to read it and give suggestions
 - **Subject matter experts**
 - **Experienced reviewers**
- **Give all these people time to help you!**

If you need other institutions

- **Involve the investigator;**
- **Write a letter for her/him to sign, with all the details of what you want agreed to;**
- **Send a budget too; count on paying overhead**
- **He/she edits, signs and sends back, with signed agreement to establish a consortium**

Great Score!

- **Money will come after council; e-mail program to ask when**
- **Money will be less than you asked for**
- **Trim the project somehow to match the \$**
- **Close to funding time get Other Support information in order and send it to JIT system; nobody's time goes over 12 mo!**
- **Same for IACUC and IRB info**

Hitches – ugh!

- **Nasty codes in the summary statement – work with PD to get them fixed**

**SRG Action: Priority Score: 176
Percentile: 24.1 #**

**Human Subjects: 30-Human
subjects involved - Certified, no
SRG concerns**

**Animal Subjects: 10-No live
vertebrate animals involved for
competing appl.**

More Hitches

**Gender: 1A-Both genders,
scientifically acceptable**

**Minority: 1A-Minorities and non-
minorities, scientifically
acceptable**

**Children:3A-No children included,
scientifically acceptable**

**Clinical Research - not NIH-defined
Phase III Trial**

Hitches – ugh!

- **Huge budget cuts – work with PD on realistic specific aims**
- **IACUC, IRB difficulties – can get Notice of Grant award with restrictions**
- **You move institutions – consult PD**

Money comes!

- **Get cracking – establish account, start the group activity, start paying people and spending the money**
- **Plan the work all over again –**
 - **Equipment available or on order (coming when???)**
 - **Post-docs on hand or ...???**
 - **Agreements to get patients**

Plan output of project

- **What are your outputs?**
 - **Data collected**
 - **Data analyzed**
 - **Papers written**

Plan output of project

- **Where do you go from here?**
 - **Take the data into a larger application**
 - **Work on this until you get it refunded**
 - **Start a second project and prepare to get it funded**



Sources of NCI imaging information to public

- Website: URL = <http://imaging.cancer.gov/>
- Email Newsletter – find an example on line and send me an e-mail to be put on list

Call us if you need us

- Web site :
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- My name is **Barbara Croft**

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