Potential Future Directions for the NIBIB Training and Career Development Programs

National Institute of Biomedical Imaging and Bioengineering

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Defining the DIDT…

Is it time to focus?

Program Analysis

FY2004 DIDT Portfolio Breakdown

Mechanism	Total $	% of NIBIB Budget
F	$475,000	0.20%
K	$2,120,000	0.80%
T32	$5,175,000	1.90%
R15	$575,000	0.20%

FY2004 DIDT Portfolio Breakdown

	F31	F32	K01	K02	K08	K23	K24	K25	R15	T32	Total		Tot Dollars
Biomaterials		2			1				2		**5**		$684,879
Biomechanics	1									1	**2**		$331,841
Biosensors		1						1			**2**		$138,989
Drug/Gene Delivery		1									**1**		$42,976
Electromagnetic								1			**1**		$145,017
Imaging Agents		1									**1**		$41,068
Image Proc								1			**1**		$160,021
MR		1	2			2		1		5	**11**		$1,847,037
Nuclear Med										2	**2**		$523,053
Optical Imag		1		1				1			**3**		$288,092
Other										11	**11**		$2,546,833
Platform Tech					1				1		**2**		$329,620
Tissue Eng	1	2	2							3	**8**		$1,190,708
Ultrasound							2				**2**		$239,701
Xray			1								**1**		$84,182
Total	2	9	5	1	2	2	2	5	3	22	**53**		**$8,594,017**

OT (Other):

Medical Physics Imaging (Mult. Modalities)
Neuroimaging & Eng.
CV. Imaging & Eng.
Molec. Imaging

FY2004: T32 Breakdown

By Grant

Predoctoral Trainees	Postdoctoral Trainees	
73	44	
Predoctoral Only	Postdoctoral Only	Mixed
10	8	4
PhDs Only	MDs Only	MDs and PhDs
11	1	10
Single Dept	Multiple Depts	
1	21	
Single Institution	Multiple Institutions	
15	7	

Number of Applications: FY2004-FY2005

Mech	FY2004 Apps	FY2005 Apps
F31	7	63
F32	15	20
F33	0	3
K01	6	15
K02	0	4
K08	2	7
K23	0	1
K24	0	0
K25	7	20
R15	8	9
T32	13	36
All Fs	22	86
All Ks	15	47

Potential Future Directions

- Making the Transition to Independence
- Feeding the Pipeline
- Developing Clinician-Researchers
- Training at the Interface

(1) Making the Transition to Independence

- Develop program to specifically address the career transition from postdoc to faculty

(2) Feeding the Pipeline

- High school and undergraduate opportunities
- Targeting underrepresented populations
- Curriculum development
  - Short courses
  - Formal training opportunities

(3) Developing Clinician-Researchers: Targets in the MD "Pipeline"

- **Target points**
  - **Medical Students**
  - **Clinical Residents**
  - **Clinical Fellows**

(4) Training at the Interface

- Attracting quantitative scientists to careers in biomedical research
- Interfacing clinicians and basic researchers
- Goals:
  - To promote “cross-talk”
  - To speed translation from technology to clinic
- Potential strategies:
  - Co-mentoring
  - Joint training (i.e., “side by side”)