

Potential Future Directions for the NIBIB Training and Career Development Programs

National Institute of Biomedical
Imaging and Bioengineering



Meredith D. Temple-O'Connor, Ph.D.
Acting Director,
Division of Inter-Disciplinary Training



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

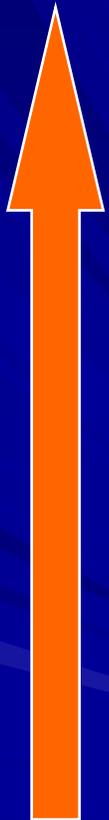
Predoctoral Trainees	Postdoctoral Trainees	
73	44	
Predoctoral Only	Postdoctoral Only	Mixed
10	8	4
PhDs Only	MDs Only	MDs and PhDs
11	1	10
Single Dept	Multiple Depts	
1	21	
Single Institution	Multiple Institutions	
15	7	

By Grant



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”)

