Training Directions
at The National Institute of Biomedical Imaging and Bioengineering

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NIBIB Training Program Philosophy

• Provide opportunities for bioengineering and bioimaging training using existing NIH mechanisms and creative approaches.

• Retain flexibility in developing training programs.

• Fill critical gaps in career continuum and attract students to research careers in bioengineering and bioimaging.

• Enhance participation of under-represented populations.

• Communication and outreach.
NIBIB Training and Career Development
Ongoing Opportunities

- **F31** (Predoctoral NRSA Minority and Disability only)
- **F32** (Postdoctoral NRSA)
- **F33** (Senior NRSA)
- **T32** (Institutional Predoc/Postdoc NRSA)
- Minority and Disability Training Supplements
- **K01** (Mentored Research Scientist CDA)
- **K02** (Independent Scientist CDA)
- **K08** (Mentored Clinical Research CDA)
- **K23** (Mentored Patient-Oriented Research CDA)
- **K24** (Mid-career Patient-Oriented Research CDA)
- **K25** (Mentored Quantitative CDA)
NIBIB Training and Career Development Activities

- Other Activities
  - NIH-NSF BBSI (Bioengineering and Bioinformatics Summer Institutes Program)
  - Assign AREA grants (R15) to the DIDT portfolio
  - Develop database system to provide ongoing tracking & evaluation
  - Plan Annual Training Grantees Meeting
  - Visits to Funded T32 Grantees
Institutional Training Grant Visits

• **Purpose:**
  To become familiar with the existing NIBIB-funded T32 institutional training grants and acquaint grantees with NIBIB

• **Meeting Format:**
  Informal meetings with training directors, faculty, students/fellows
Institutional Training Grant Visits: Outcome

- A number of common problems/frustrations identified:
  - Administrative issues
    - Support for key personnel, including administrators
  - NRSA restrictions
    - Citizenship
    - Funds inflexibility
  - Recruitment problems, especially at postdoc level
Institutional Training Grant Visits: Outcome

- **Interesting Features:**
  - Co-mentoring
  - Interdisciplinary (trans-department) training opportunities
  - Clinical and/or industry rotations as part of the curriculum
  - Grants that appoint trainees from different disciplines
NIBIB Training: Immediate Goals

• Modified Institutional Training Program
  - Address infrastructure needs, support of coordinators, interaction among career levels, and inter-departmental issues

• Medical Residency Research Program - Attract residents to research

• Postdoc-Faculty Transition Award - Assist junior investigators in transition from postdoctoral fellow to faculty position
Modifications to Institutional Training

• Utilize other grant mechanisms to complement existing T32 mechanism

• Items to consider: administrative support funds, training funds for undergraduates or non-US citizens, curriculum development, funds for the training director?
Training of Residents

• **Initial phase:** Supplements program
  • Provide supplements to existing NIBIB PI’s to add residents to a grant
  • 1-2 year experience
  • Project proposal required
  • Undergo peer review
  • Evaluate success for future program development
  • Pipeline for K awards?
Career Transition

- Use the NIH K22 mechanism
- Two Phase Award: Postdoctoral/Faculty Transition—5 years total for award
- 2-3 yr. Postdoc (at NIH, other government agency or in academia)
- 2-3 yr. Faculty position (elsewhere encouraged)
- Administrative review between phases
NIBIB Training: Future Goals

• Expand F31 eligibility
• Revitalization of the AREA program
• Participation in NIH Roadmap Activities
  • Curriculum Development
  • Short Course Training Opportunities
  • Interdisciplinary Centers
  • Institutional Clinical Research Centers
  • Others to come....
Challenges to Creating the Interdisciplinary Researcher of the Future

- NIBIB serves a broad-based community
- Breadth of need
- “Cultural differences”
- Broader community “buy-in”
"Never, ever, think outside the box."