NIBIB Training and Career Development Programs

National Institute of Biomedical Imaging and Bioengineering

NIBIB Training Program Goals
http://www.nibib1.nih.gov/training/training.html

- Provide opportunities for bioengineering and bioimaging training using existing NIH mechanisms and creative approaches.
- Retain flexibility in developing training programs.
- Communication and outreach.
- Fill critical gaps in career continuum and attract students to research careers in bioengineering and bioimaging.
- Enhance participation of under-represented populations.

Training Grants and Fellowship Awards

- NRSA support provides a stipend to pre-doctoral students while they work toward their research degrees or to postdoctoral fellows while they obtain additional research experience in a mentor's laboratory.
  - ➤ T32 – Institutional Training Grants
  - ➤ F31 – Ruth L. Kirschstein NRSA Individual Predoctoral Fellowships
  - ➤ F32 – Ruth L. Kirschstein NRSA Individual Postdoctoral Fellowships
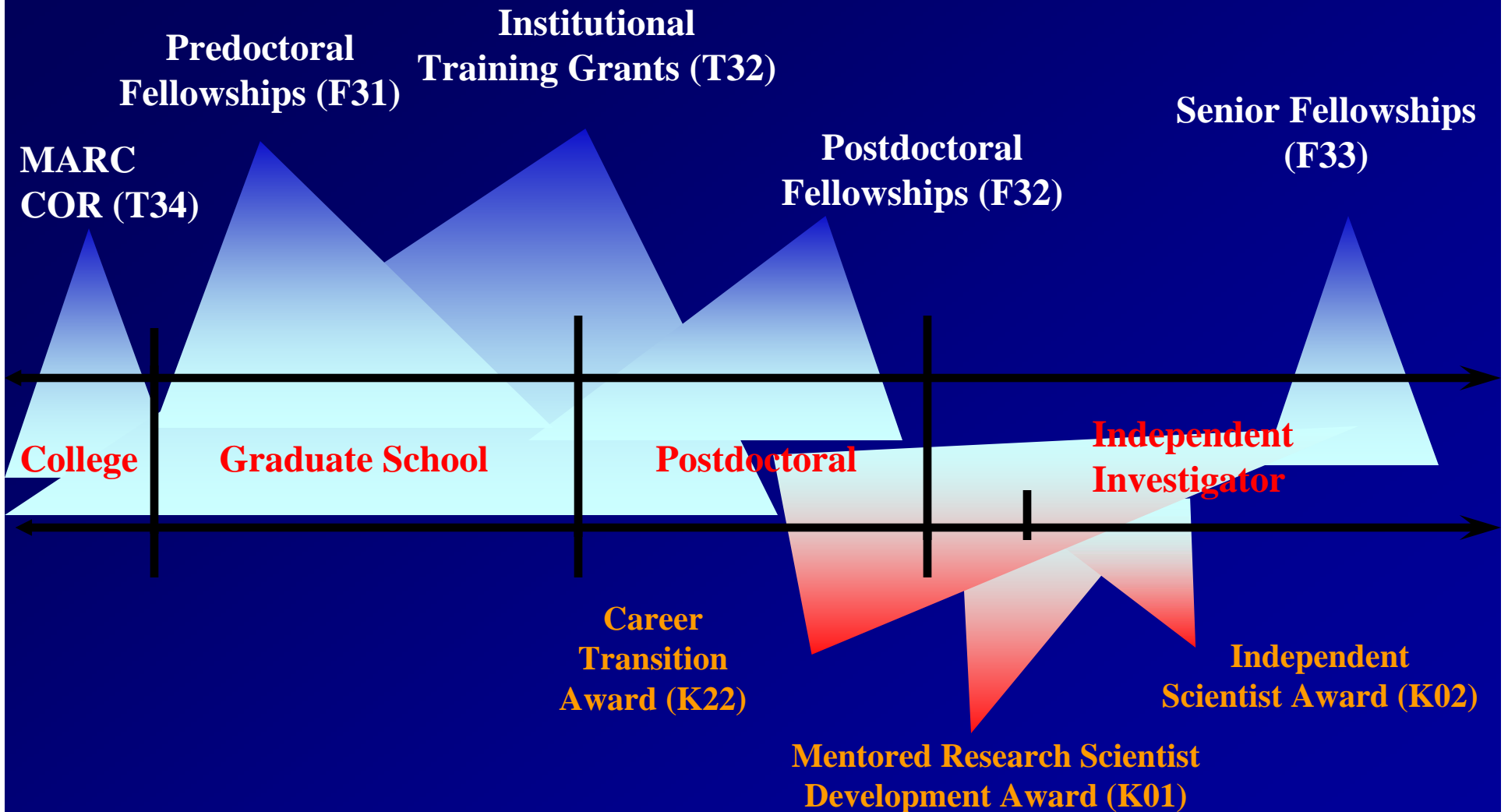 - ➤ F33 – Individual Senior Fellowships

Mentored and Independent Career Development Awards

- Career development awards provide salary and laboratory support for individuals who have completed their postdoctoral training, or who need time to perform research during critical periods of their careers.
  - ➢ K01 – Mentored Research Scientist Development
  - ➢ K08 – Mentored Clinical Scientist Development
  - ➢ K23 – Mentored Patient-Oriented Research Development
  - ➢ K25 – Mentored Quantitative Research Scientist Development
  - ➢ K02 – Independent Scientist Development
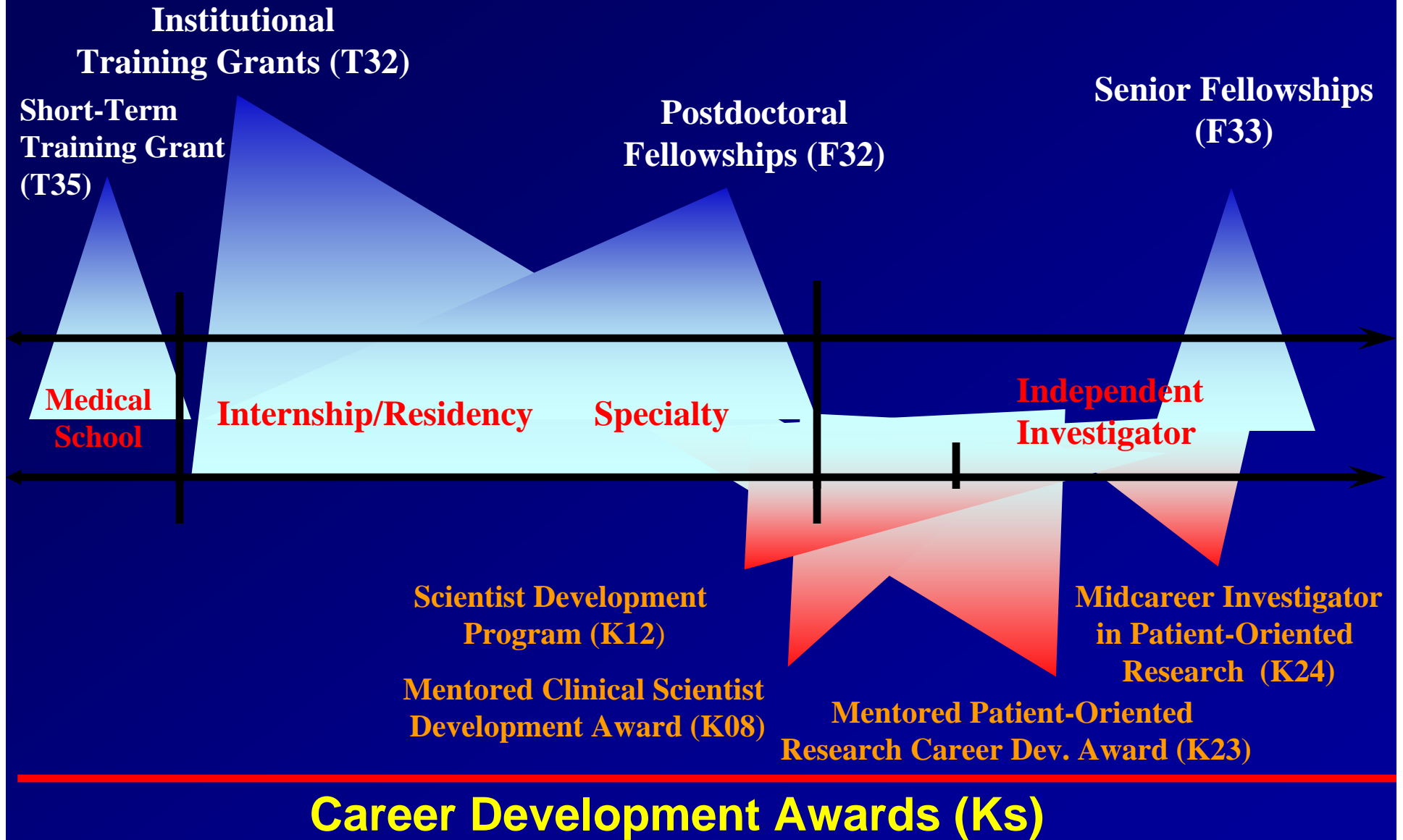 - ➢ K24 – Mid-career Patient-oriented Research Development

NRSA Fellowships and Training Grants (Fs & Ts)

Predoctoral
Fellowships (F31)

Institutional
Training Grants (T32)

Senior Fellowships
(F33)

MARC
COR (T34)

Postdoctoral
Fellowships (F32)

College

Graduate School

Postdoctoral

Independent
Investigator

Career
Transition
Award (K22)

Independent
Scientist Award (K02)

Mentored Research Scientist
Development Award (K01)

Career Development Awards (Ks)

NRSA Clinical Fellowships and Training Grants (Fs & Ts)

Institutional
Training Grants (T32)

Short-Term
Training Grant
(T35)

Postdoctoral
Fellowships (F32)

Senior Fellowships
(F33)

Medical
School

Internship/Residency   Specialty

Independent
Investigator

Scientist Development
Program (K12)

Mentored Clinical Scientist
Development Award (K08)

Midcareer Investigator
in Patient-Oriented
Research (K24)

Mentored Patient-Oriented
Research Career Dev. Award (K23)

Career Development Awards (Ks)

Other Training and Career Development Opportunities

➢ Diversity and Career Re-entry Training Supplements.

➢ Research Supplements to Promote Clinical Resident Experiences.

➢ HHMI-NIBIB Interfaces Initiative for Interdisciplinary Graduate Research Training.

➢ NIH/NSF Bioengineering & Bioinformatics Summer Institutes Program (BBSI).

➢ Biomedical Engineering Summer Internship Program (BESIP).

➢ NIH/NIST Joint Postdoctoral Program.

➢ Academic Research Enhancement Award (AREA, R15).

➢ NIH Loan Repayment Program.

Supplements to Currently Active Research Grants – NIH

- Research Supplements to Promote Diversity in Health-Related Research:
    - A. individuals from underrepresented racial and ethnic groups;
    - B. individuals with disabilities; and
    - C. individuals from socially, culturally, economically, or educationally disadvantaged backgrounds that have inhibited their ability to pursue a career in health-related research.
- Research Supplements to Promote Re-entry into Biomedical and Behavioral Research Careers.

Supplements to Currently Active Research Grants – NIBIB

- **NIBIB Research Supplements to Promote Clinical Resident Research Experiences:**
  - ➢ To attract outstanding clinicians into research careers related to the mission of the NIBIB, in order to increase the numbers if residents entering and remaining in NIBIB-focused research careers.
  - ➢ Award to an active NIBIB research project grant mechanisms (R01, R37, P01, P41, P50).
  - ➢ Proposed research experience related to the ongoing research of parent grant, and potential to contribute significantly to the research career development of the candidate.

Partnerships with Other Agencies

- **NIH/NSF Bioengineering and Bioinformatics Summer Institutes:** 10 week program to attract quantitative science majors (undergraduate and graduate) to biomedical careers.

- **Biomedical Engineering Summer Internship Program (NIH, NIH Found., Whittaker Found.):** 10 week program to provide undergraduate bio-engineering students an opportunity to participate in cutting-edge research at NIH laboratories.

- **NIH/NIST Joint Postdoctoral Program:** 2 year support for postdoctoral fellows, to cultivate a scientific work force competent in both the biological and the physical sciences.

Partnerships with Other Agencies

- **HHMI-NIBIB Interfaces Initiative for Interdisciplinary Graduate Research Training:**
  - ➤ Train a cadre of Ph.D. scientists who possess the knowledge and skills to conduct interdisciplinary research at the interface between the biomedical sciences and the physical science, computational, engineering, or mathematical disciplines.
  - ➤ Phase I: 3 years, funded by HHMI, supports the establishment of new interdisciplinary training programs. Up to $10 million for up to 10 institutions.
  - ➤ Phase II: 5 years, funded by NIBIB, will sustain the training programs through their critical early years.

Training and Career Planning

- **Strategic Implementation**
- **Needs assessment Study**
- **Possible concepts under discussion:**
  - ➢ Postdoctoral-Faculty Transition Award to Assist junior investigators in transition from postdoctoral fellow to faculty position.
  - ➢ Opportunities for junior investigators.

General Tips

- **Contact NIH Program staff:**
  - ➢ Well in advance of receipt date.
- **Read Application Instructions <u>and</u> Review Criteria:**
  - ➢ Critical to a successful application.
- **Explore opportunities at different Institutes and Centers:**
  - ➢ Particularly important for the training and career development programs.

Additional Information

- **Contact NIH:**
  - ➤ Training Website: http://grants1.nih.gov/training/index.htm
  - ➤ Training Q&A: http://grants1.nih.gov/training/q&a.htm
  - ➤ Institute Training Contacts:
    http://grants1.nih.gov/training/tac_training_contacts.doc
- **Contact NIBIB:**
  - ➤ Training Website: http://www.nibib.nih.gov/training/training.html
  - ➤ Email: hk11b@.nih.gov
  - ➤ Phone: (301) 451-4792