

the characteristics of the training activities have shown important variations over the years.

To set manageable limits to detail on training program additions and changes through time, a selection of just the high points is set down below, chronologically:

In the period 1937-46, NCI focused its training efforts on two aspects: (a) postdoctoral research fellows, and (b) clinical traineeships in diagnosis and therapy. For both of these programs, NCI made awards to individuals based on selection by NCI staff. In 1946 NCI added predoctoral research fellowships to its training efforts.

The first departure from the pattern of individual award and central review was in 1948. In that year, undergraduate training grants were initiated, these going to institutions to strengthen their undergraduate teaching capabilities in special fields.

During the late 1940's and early 1950's—as each of the NIH categorical institutes was established—the institutes set up training programs to develop the manpower pool where critical shortages existed; also for professional fields broadly related to the institute's statutory responsibilities.

In 1948, NIMH set up its graduate training grant program to support specific departments (psychiatry, psychology, nursing, and social work), providing direct departmental subsidy, as well as support of individual trainees. This was the first training program to use a committee of external advisers to review proposals. The role of Institute staff, therefore, was to invite proposals and to establish program goals for guidance of institutions.

In 1950 the National Heart Institute modified the graduate training grant mechanism to give the grantee institutions greater latitude in several respects: Institutions were allowed to set the level of individual stipends; also to select trainees for the program without central NIH review. This established the general pattern for NIH programs of this type. Also in 1950, on the intramural training side, the NIH visiting program was established. Its purposes were to strengthen the mutually productive relationships of scientific centers throughout the world with that part of the American scientific community represented by NIH, and to increase the utility of the facilities and environment of NIH as a national research resource. (From 1950 to 1955 only about 60 appointments were made under this program. Currently, however, the average number of participants in the visiting program on duty each month runs close to 130.)

In 1954, NIMH initiated career investigator grants. These were intended to support promising scientists in the interval between the completion of their formal training and attainment of tenure appointments. They also were intended to encourage research as a component in an academic career in psychiatry.

In 1955 part-time fellowship programs were initiated for predoctoral students in medicine. (This usually was for summer work.) Purposes of the new program:

- (a) To stimulate student interest in research;
- (b) To permit early identification of research talent;
- (c) To expose selected individuals to research experience as part of their formal education.

In 1958 the creation of the Division of General Medical Sciences (now NIGMS) provided an institutional focus for programs to support