

Of the nine NIH Institutes, seven have substantial intramural activities, and an eighth (NICHD) has already made a modest start and plans expansion. At the core of NIH intramural effort are 1,500 doctor of philosophy or doctor of medicine scientists engaged in full-time research, with facilities and supporting staff on appropriate scale. Among the supporting facilities are a 500-bed clinical center and a farm for research animals. For each Institute, intramural scientists are organized (under a scientific or clinical director) in sections and laboratories or clinical branches. Within Institute objectives, each scientist is allowed considerable latitude in his choice of research projects. Each Institute receives disinterested scientific advice on its intramural activities from non-NIH science leaders appointed to boards of scientific councilors. Overall coordination of intramural activities is provided by Institute scientific directors, who meet regularly under the chairmanship of the NIH Director of Clinics and Laboratories. This group must approve promotions for all intramural research staff.

*Extramural activities.*—Through its research grants and contracts, NIH now supports 40 percent of all medical research conducted in the United States; this also constitutes one-third of all Federal funds for the support of research in colleges and universities, proper.

Contracts are used in dealing with institutions organized for profit, or for the purchase of specific research goods or services. Only 8 percent of NIH extramural research funds is spent on contracts. Because of the many intangibles incident to research and development work, the cost-reimbursement and cost-plus-fixed-fee methods of contracting are utilized to a large extent.

When it appears to an NIH institute that its interests will be best served by a research contract, formal proposals are solicited from prospective contractors. The prospective contractor furnishes information in the proposal about the nature, structure, capacity, and qualifications of his organization, the terms under which he can undertake the Government work, and an estimate of the costs (or price) and time which he feels necessary to accomplish the task. Each prospective contractor's proposal is reviewed by program staff and by the contracting officer.

*Research grants.*—Several types of research grants are used by NIH in awarding funds to nonprofit institutions when the proposed research ties into NIH program needs. The research project grant is awarded to an institution for a discrete project representing the investigators' interests and competencies. The research program-project grant is awarded to an institution solely for the support of basic physical resources or an integrated system of resources and services essential to the conduct of a broad program of research.

The method of distributing research grant funds has been designed to assure that funds are awarded only to research projects and programs that are competently judged to have high scientific merit and in only such amounts as are necessary for their support.

Applications are uniformly investigator initiated, with the exception of the few instances in which the Institute, on the advice and with the concurrence of a study section or other initial review group and the appropriate national advisory council or committee, has taken the initiative to make known to competent investigators areas in which research is much needed.