

B.4 Trainee Candidates

B.4.1 Admissions Requirements: Applicants for postdoctoral fellowship positions must have an M.D. or Ph.D. degree at the time of application, must be a U.S. citizen or permanent resident. In addition, other fellows will participate in the program who are funded from other sources; these will include foreign applicants. Applicants are accepted based on their qualifications for training and the extent to which the program can implement their interests in research.

The following credentials are requested from applicants: 1) curriculum vitae, designating date of degree awards, publications, research awards and experience; 2) transcript of medical school and/or graduate school work; 3) references provided by the applicant's mentors as well as from persons acquainted with the applicants activities; 4) general statement of immediate and long-term research goals; 5) a research proposal, to evaluate the ability of the potential trainee to think through problems in imaging research. Research proposals will be developed with the assistance of a proposed mentor. Promising candidates who have not identified a mentor will have their statement of research goals examined by the Executive Committee and a faculty member will be assigned who will help them develop a project proposal. If accepted this faculty member will also likely serve as a mentor. Candidates are also interviewed.

The selection of fellows is based on the relevance of the career plans of the fellows to the goals of the program, the competence of the individual in basic and clinical research as indicated by the quality and quantity of publications, the scholastic record in graduate and/or medical school, and the recommendations of the advisors. Plans for research are considered as indications of competence, but knowledge of the new area of work is not presupposed. Fellows are selected by the Neuroimaging Sciences Training Program Executive Committee, the composition and design of which is described in detail in B.3.1. Fellows will be selected by a closed ballot vote of the Executive Committee. Fellows will also be selected in order to have a diverse collection of individuals with basic and clinical research backgrounds, both M.D. psychiatrists and neurologists, and Ph.D. neuroscientists, psychologists, engineers, chemists and physicists. Neurologists will also be considered if their research interests are in the area of behavioral science and their work will significantly improve our understanding and treatment of mental disorders. Selection will also be based on having appropriate representation from all racial and ethnic groups. To this end racial and ethnic representation will be considered in addition to the other selection factors in order to produce future generations of neuroimaging scientists both in clinical and basic science areas who represent all races and ethnic origins.

B.4.2 Recruitment: Availability and Sources: The faculty of the proposed T-PINS currently have active laboratories and are internationally recognized in their respective fields of research. As such the faculty frequently receive unsolicited applications for training opportunities, for which there currently are no readily available sources of support. Additional advertising in international journals in psychiatry, neuroscience, and imaging sciences will be performed to recruit applicants for the program. We will advertise in *Science*, *Archives of General Psychiatry*, *Biological Psychiatry*, *Chemical and Engineering News*, *Psychiatric News*, and *Neurology* in order to ensure that we have an adequate number of candidates from outside institutions. We

will also require that 50% of candidates who are accepted come from outside institutions. We will also advertise to recruit psychiatry residents who wish to transfer to Emory to complete their 4th year of residency as a combined research/clinical year. This will ensure a 50% recruitment from outside institutions. A review of the T32 training programs currently funded by the NIMH showed that the majority are concentrated at major universities in the Northeast and West Coast, with a lesser concentration in the Southeast. In the State of Georgia the only T32s that have any potential relevance to mental health is a HIV/AIDS Clinical Research Training Program at Emory Psychiatry, a Substance Abuse Program through NIDA, and a Neurological Sciences Training Program at Emory Neurology. Georgia Tech Psychology has a T32 in cognition and aging. This lack of training programs in mental health is in spite of the fact that Georgia has a number of excellent academic institutions that yearly produce outstanding graduates, including Emory, Georgia Tech, Georgia State, the University of Georgia, and Morehouse College. These institutions represent an excellent source of recruitment for the T-PINS, with an over-representation of minorities. This will ensure a more balanced representation of minorities than occurs in currently funded training programs.

It is anticipated that there will be no difficulty in recruiting Ph.D. candidates for the program. A more pressing need is recruiting psychiatrists and neurologists interested in mental-health relevant research to the program. The portfolio of the NIMH extramural funded research currently shows a minority of M.D. principal investigators with training in psychiatry. This shortage of psychiatrists performing independent research is a major problem in the field of mental health research, since it is the psychiatrists with clinical knowledge and training who will continue to keep research in mental health relevant to real clinical problems. A major problem is finding psychiatrist mentors who have successful careers as physician scientists to motivate psychiatrists to pursue careers in clinical research. Research shows that psychiatrists need at least a two year period of protected research time as fellows in order to go on to productive research careers. Research also shows that psychiatrists who are in training programs with Ph.D.s have more productive subsequent careers in terms of future publications and future funding obtained for research. Experience shows that psychiatrists need to obtain fellowship training immediately after residency training in a period when they have not adjusted their lifestyle expectations to a higher income level. The T-PINS uses as its model the Yale Biological Psychiatry Training Program, of which Dr. Bremner was a graduate. This program recruited psychiatrists in their last year of residency training, this allowed psychiatrists to combine their educational requirements for board eligibility with the opportunity to initiate their research careers. Effectively the training period was increased from four years to five, two years of which were spent in research. Graduates then typically applied for K awards or another fellowship award.