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Project Summary/Abstract

This T32 post-doctoral training program, now in its 26th year, provides 2-3 years of fellowship designed to prepare physicians and PhDs for investigative careers in the area of obesity. Of the 24 fellows trained during the past 15 years, 83% are in research (academic, industry) positions related to obesity and allied disorders. Our **Specific Aim** is to train promising young scientists to become independent investigators focusing on obesity-related issues. Our **long-term objective** is to increase the investigator pool working on the biology of obesity and its co-morbidities. This program has important national implications since obesity is now one of the foremost health problems facing America, imposing growing costs in terms of human suffering, health care and productivity. There is a critical dearth of well-trained young investigators. We provide a structured curriculum in the first 2 years, in combination with a research experience emphasizing basic laboratory and/or translational research. Post-doctoral fellows are appointed at Columbia University, enabling access to a wide array of formal courses throughout the University. The T32 has specified course requirements that are attuned to the specific training undertaken and previous experience. Examples have included experimental design and advanced biostatistics. Fellows participate in seminars of obesity, diabetes, nutrition and other bioscience centers of the University. Trainees elect to work with a faculty member at Columbia and are incorporated into the investigative program of mentors at the New York Obesity Nutrition Research Center. The faculty's multidisciplinary nature (physicians, biochemists, cell biologists, pathologists, psychiatrists, nutritionists, and geneticists) allows a multi-disciplinary approach by the trainees. Strong collaborative ties among the training faculty make this possible. Trainees have access to the entire spectrum of research tools in obesity biology, ranging from structural/cell biology through clinical investigation. Trainees are (1) physicians who have completed 3 to 5 years of post-graduate clinical training, (2) recent PhD (or equivalent) recipients in disciplines including (but not limited) to genetics, biochemistry, nutrition, psychology, physiology, neuroendocrinology, neuroscience, or pharmacology. Individuals are selected on the basis of their demonstrated competence in medical and/or graduate school, recommendations of their faculties and consideration of the degree to which their research interests are congruent with those of the Columbia faculty. All trainees must be pursuing an investigative career in obesity (including its complications) eating disorders, or appetitive behavior. An Individual Development Plan is created for each trainee and is monitored by a Scholarly Oversight Committee. Great effort is expended to maintain minority diversity in the program. Each of the participating faculty laboratories (n=22) is well equipped and funded to support a trainee's research. An evaluation system monitors performance of the trainees, the mentors, and the program as a whole. Internal and External Advisory Boards review the program annually. Continued funding for 3 trainees is requested.