

The overarching goal of this mixed predoctoral and postdoctoral training program is to develop burgeoning scientists into future leaders in translational rehabilitation research who are specifically equipped to test and disseminate novel rehabilitative strategies that will alleviate functional impairment and compromised life quality in the face of chronic disease management. This goal will be met by taking advantage of an exceptionally rich institutional environment that offers myriad resources and a complementary and collaborative team of 31 productive mentors committed to training and career development. Predoctoral and postdoctoral trainees will benefit from two years of interdisciplinary training that carefully meld three core levels of scientific inquiry: (i) cellular and molecular pathobiology of disease; (ii) rehabilitation science and exercise physiology; and (iii) rehabilitation medicine (i.e. clinical trials). Training will occur in one of two areas of concentrated strength: (1) Neuromusculoskeletal Disorders; or (2) Cardiometabolic Diseases. Cross-cutting themes with training opportunities include cancer and aging. Predoctoral trainees will be selected from a highly competitive and diverse national pool admitted to either the Graduate Biomedical Sciences program or Rehabilitation Science program. Nationally recruited postdoctoral trainees will gain invaluable clinical and translational research training and career development via structured programs and courses sponsored by the Office of Postdoctoral Education and the Center for Clinical and Translational Science. Each trainee's primary mentor and Translational Mentoring Team will be drawn from expert program faculty in the Schools of Medicine (cell, developmental, & integrative biology; physical medicine & rehabilitation; neurology; pathology; genetics; cardiology; geriatrics), Health Professions (physical therapy; occupational therapy; nutrition sciences), Public Health (epidemiology), and Arts & Sciences (psychology). Together the trainee, mentor, and Translational Mentoring Team will craft an individual development plan, which will be approved and monitored semi-annually by the Executive Committee. The plan will include required and elective didactic courses, laboratory and clinical research, journal clubs, seminars, scientific presentations locally and at national meetings, and training in the responsible conduct of research. Learning to conduct and publish high-impact research will be a primary focus of the program. Trainees will also profit from courses on grant writing and professional skills. The program will grow from mentoring two predoctoral and two postdoctoral trainees in the first year to four of each annually, and will take advantage of well-established best practices for successful recruitment of underrepresented minorities and individuals with disabilities. As a top 25 NIH-funded academic medical center with over 80 state-of-the-art scientific core facilities and 28 University-wide, interdisciplinary research centers, the University of Alabama at Birmingham is remarkably well-positioned to cultivate truly translational scientists equipped to drive the field of rehabilitation medicine with cutting edge research.