Historical Background

The Harvard Fatigue Laboratory, conceived in 1926 by Lawrence J. Henderson, began operation in the fall of 1927 as a laboratory of human physiology in the Harvard Graduate School of Business. The founding committee included Henderson; Wallace Donham, dean of the Business School; William Morton Wheeler, professor of entomology at Harvard College; David T. Edsall, dean of the Medical School; Elton Mayo, professor of industrial research in the Business School; and Arlie Bock, of the Medical School and the Massachusetts General Hospital. The Fatigue Laboratory sought to study the interrelationship of biophysical and biochemical activities, the phenomena of fatigue and similar conditions, differences in the physiological pattern, and physiological experiences as sociological data. Research topics included the physical chemistry of blood, exercise physiology, nutritional interactions, aging, and the stresses of high altitude and climate.

David Bruce Dill was unofficially appointed to organize and direct the program of the Laboratory and held an assistant professorship (1927-1936) in biochemistry at the School of Public Health and professorships (1927-1947) in industrial physiology at the Harvard Business School. He continued at Harvard as a visiting lecturer in physiology until 1961. Dill was the scientific leader of the International High-Altitude Expedition to Chile in 1935.

The laboratory was equipped with several treadmills, climatic room, cold room, altitude chamber, and animal room. The first high-altitude study was conducted in 1929 and the first desert study in 1932. Researchers during the early years included Bill Consolazio, J.H. Talbott, W.H. Forbes, David Bruce Dill, and Steven Horvath. The laboratory attracted numerous foreign fellows and U.S. physiologists.

During the war, the laboratory carried on research funded by the government, although many staff members took military commissions and
worked in wartime research programs. L.J. Henderson died in 1942 and by that time most of the founding committee members had retired. After the war, several factors contributed to the closure of the laboratory, including the loss of University financial support, the University's policy against the use of government support and the departure of senior staff members to more stable positions. In 1946, the Harvard Fatigue Laboratory was dissolved and its assets turned over to the School of Public Health.

In 1947, Dill was appointed director (1947-1961) of medical research for the U.S. Army Chemical Research and Development Laboratory. After his retirement at the age of 70, he was Research Scholar (1961-1966) at Indiana University. From 1966 to 1976, Dill was research professor at the Desert Research Institute of the University of Nevada, Las Vegas. There he directed the Laboratory of Patho-Environmental Physiology were he replicated the Harvard Fatigue Laboratory with visiting professors and Boulder City high school science students.

Dill died in 1986.

HISTORICAL ARTICLE ABOUT THE LAB:

http://advan.physiology.org/cgi/reprint/34/3/119
Applications of Exercise Physiology

I. US Armed Forces RESEARCH:  
http://www.usariem.army.mil/Pages/research.htm

II. EXERCISE Training and Human Performance:  
http://www.athletesperformance.com/

III. EXERCISE Rehabilitation:  
http://www.theandrewsinstitute.com/

IV: Promoting Health Aspects of Physical Activity:  
Exercise is Medicine: http://www.exerciseismedicine.org/  
ProSportsClub: http://www.proclub.com/

Professional Organizations:  
National Strength & Conditioning Association: http://www.nsca-lift.org/  
American College of Sports Medicine: http://www.acsm.org/