Investigator:	**Mervyn Weitzmann** Phone: (404) 727-1389 Email: mweitzm@emory.edu
Primary Research Interest:	Other
Description of Research:	My laboratory studies the immuno-skeletal interface. Over the past decade I have investigated the integration of skeletal and immune systems and how changes in immune function translate into effects on the skeleton. We are currently investigating how immune-dysfunction associated with HIV-infection and sickle cell disease lead to bone loss, and how immunosuppressive and antiretroviral agents utilized to manage inflammatory and immunologically-related diseases, impact skeletal remodeling in animal models. Recent studies are investigating how the immunomodulator Abatacept (CTLA4-Ig) promotes bone formation via T cell production of the anabolic factor Wnt10b. Finally, we are studying the utility of early pregalactic interventions for bone diseases versus waiting until bone has already been lost and is difficult to regenerate.
Relevance to VA:	Osteoporosis is endemic among Western societies. Fractures are already a serious medical problem among aging Veterans and in the general population and 1 in 2 females and 1 in 5 males over the age of 50 will suffer a bone fracture in their remaining lifetimes. Fractures lead to huge healthcare expenditures, loss of mobility, and morbidity. Hip fractures almost always require surgery and mortality rates are extremely high in aged individuals following surgery. Elucidating the mechanisms that regulate basal bone turnover in young and aged individuals is central to our understanding of the pathophysiology of bone diseases and to the design of new effective countermeasures.