Dr. Melanie Gillingham

Dr. Melanie Gillingham's research in the Department of Molecular and Medical Genetics has focused on various novel therapies for fatty acid oxidation disorders. For 20 years, Dr. Gillingham and her colleagues have conducted clinical trials in subjects with disorders in the fatty acid oxidation pathway. She has examined the effects of (MCT) supplementation prior to exercise and the effects of increased dietary protein on metabolic control and energy balance in subjects with LCHAD, CPT-2, and VLCAD deficiencies. Dr. Gillingham serves on the planning committee for INFORM, an international group working for the advancement of medical and nutrition therapies for fatty acid oxidation disorders. Dr. Gillingham, in collaboration with Dr. Vockley, completed a randomized trial to examine the effects of an odd-chain fatty acid supplement, triheptanion, on myopathy and cardiac function of patients with long-chain fatty acid oxidation disorders. Dr. Gillingham has also conducted a series of studies examining the etiology of retinopathy in LCHAD and the role of diet in the progression of vision loss. Overall her lab studies fatty acid oxidation disorders with a particular focus on LCHADD and currently they have both human and basic science projects ongoing.