## Flavonoid Modification Of Vitamin E (E) Kinetics In Cystic Fibrosis (CF) Patients

Dr. Cross's research group is studying whether lung damage observed in patients with cystic fibrosis (CF) is associated with depletion of an important antioxidant, vitamin E. The rationale for conducting this study is that lung damage is caused by infections and the related efforts by the body to kill the bacteria present in airways. When the body works to fight off the bacteria its white cells (inflammatory cells) produce free radicals and other oxidants. While this response can be effective in fighting off the infection, the body must use its antioxidants, such as vitamin E, for protection from the accompanying damaging effects of free radicals. As a result, vitamin E can be depleted and lung damage can be aggravated. CF patients are already at risk of vitamin E depletion due to inadequate absorption. Thus, Dr. Cross's research group is investigating whether the inflammatory responses in CF patients leads to further vitamin E depletion. If this turns out to be true, the group plans to assess whether additional antioxidant supplementation with vitamin C or the antioxidant flavonoid, quercitin can improve the body's defense against the damage caused by the CF.