Glutamate dehydrogenase hyperinsulinism (GDH) is the second most common form of HI. Like all people with HI, if untreated, those with GDH secrete too much insulin and, consequently, suffer from hypoglycemia. They are especially at risk for low blood sugar after a protein rich meal. They have high ammonia levels in their blood which can cause epilepsy and other health issues. Currently they are treated with diazoxide for HI, but this only treats the symptoms and not the cause of the disease.

The goal of this study is to identify a safe medicine to treat all the health issues resulting from elevated blood ammonia levels in people with GDH-CHI. In early investigations, we identified that a component of green tea extract, EGCG, is a potent inhibitor of GDH and we have also identified several other lead GDH inhibitors. A GDH inhibitor would be an ideal treatment, because it would control the excess insulin secretion, and could improve liver, kidney and brain function by controlling high blood ammonia levels.