Human genetic modification may promise cures for some diseases

The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.

“Human gene therapy” has been one of the most ambitious goals of biotechnology since the advent of molecular techniques for genetic modification in the 1970’s. There are two distinct approaches to it, and they present different kinds of benefits, risks and controversies.

Somatic cell human gene therapy (SHGT) alters a patient’s genes—either by the editing of existing genes or the insertion of new ones–in order to correct conditions present at birth or acquired later in life. Somatic cells are any cells in the body except eggs or sperm, so modifications in them are not heritable–that is, passed on to offspring.

Since a four-year old with a genetic defect called Severe Combined Immunodeficiency, or “bubble boy disease,” was first successfully treated at the National Institutes of Health in 1990, SHGT has achieved several other successes, including the correction of rare genetic abnormalities that cause recurring pancreatitis and blindness from degeneration of the retina (choroideremia).

Read full, original post: Can The Creation of ‘Human GMOs’ Cure Genetic Diseases?