

Sharma, A. et al. CRISPER-Cas9 Editing of the HBG1 and HGB2 Promoters to Treat Sickle Cell Disease. PubMed; <https://pubmed.ncbi.nlm.nih.gov/37646679/> (2023)

The above citation is that of an article that examines a genetic modification approach to treating sickle cell disease. This article discusses how sickle cell disease is expressed phenotypically and pathophysiologically, and describes how the phenotype of a defective β -globin subunit in erythrocytes can cause not only this disease but death as an extended consequence. The article talks about the authors' method to DNA modification to mediate the defective β -globin subunit in erythrocytes via using the biotechnology CRISPER-Cas9 and their respective methods of measurement to identify whether or not their efforts were effective. The article explains a DNA modification technique that will be used to affect the phenotypic expression of erythrocytes so that their prodigy will present with no β -globin subunit defect.

This article would be considered a primary article, due to the fact that it has abstract, methods, results, and conclusion sections which are each written by authors who have conducted the experiment described, and their main sources for trial information come from their experiments, making their article a primary article, as they themselves have yielded the data at which they are discussing. This article was published to NIH, which means that it as a qualifier to the journal is peer-reviewed.

This article was considered a clinical trial, which differs from a meta-analysis (secondary article). A meta-analysis would've attempted to display, analyze, build on, or critique the findings of another group of people, and will not suggest in any way that they have conducted the study. This article, however, presents in the "methods" section that they themselves have conducted this experiment, and specified what **they** noticed throughout the process, along with a clear presentation of their own yielded data in the "results" section. Given this information, this article is a great example of a primary, peer reviewed article in the field of genetics which presents findings in a satisfactory manner that can be used by other researchers to guide their future experiments.