New gene editing tools force renewed debate over therapeutic germline alteration

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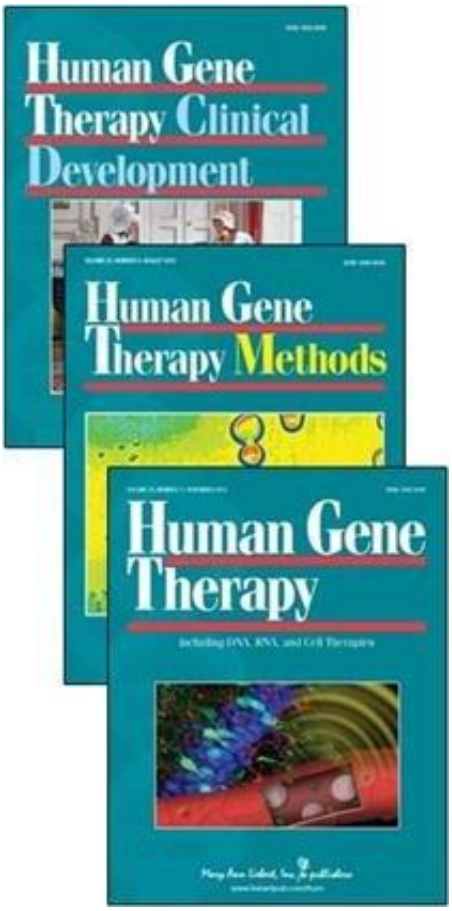

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Recent evidence demonstrating the feasibility of using novel CRISPR/Cas9 gene editing technology to make targeted changes in the DNA of human embryos is forcing researchers, clinicians, and ethicists

to revisit the highly controversial issue of altering the inherited human genome. A provocative Editorial exploring the current technical limitations, safety concerns, and moral acceptability of therapeutic germline gene editing is published in *Human Gene Therapy*.

Terence R. Flotte, MD, Incoming Editor-in-Chief (July 2015) of *Human Gene Therapy*, Celia and Isaac Haidak Professor of Medical Education and Dean, Provost, and Executive Deputy Chancellor, University of Massachusetts Medical School, highlights the safety and efficacy issues associated with the current generation of CRISPR/Cas9 genome editing technology.

In the Editorial "Therapeutic Germline Alteration: Has CRISPR/Cas9 Technology Forced the Question?" Dr. Flotte asks, "If and (more likely when) modifications of CRISPR/Cas9 overcome its current limitations, would society find it acceptable to treat a genetic disease in a manner that could be inherited?" Although the NIH's Recombinant DNA Advisory Committee does not support research involving germline alterations, "it may be necessary to more explicitly clarify guidelines on performing gene editing experiments in non-viable and pre-viable human embryos," proposes Dr. Flotte.

More information: The article is available free on the *Human Gene Therapy* website until May 29th.

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