

International perspectives on human gene editing:



South Africa



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South Africa

Population +/- 52 million

GDP \$350 billion

(US) 19.3%-----9.1% on health-----1.3% (Pakistan)

Clinical trials +/- 2500



GINI
COEFFICIENT
0.77



HIV Burden of Disease

6.8 million HIV positive

340 000 new infections

200 000 deaths

42% on ARVs





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ORIGINAL ARTICLE

Gene Editing of *CCR5* in Autologous CD4 T Cells of Persons Infected with HIV

Pablo Tebas, M.D., David Stein, M.D., Winson W. Tang, M.D., Ian Frank, M.D., Shelley Q. Wang, M.D., Gary Lee, Ph.D., S. Kaye Spratt, Ph.D., Richard T. Surosky, Ph.D., Martin A. Giedlin, Ph.D., Geoff Nichol, M.D., Michael C. Holmes, Ph.D., Philip D. Gregory, Ph.D., Dale G. Ando, M.D., Michael Kalos, Ph.D., Ronald G. Collman, M.D., Gwendolyn Binder-Scholl, Ph.D., Gabriela Plesa, M.D., Ph.D., Wei-Ting Hwang, Ph.D., Bruce L. Levine, Ph.D., and Carl H. June, M.D.

N Engl J Med 2014; 370:901-910 | [March 6, 2014](#) | DOI: 10.1056/NEJMoa1300662

Justice & Equity

**Research & Capacity
Development**

**Cost of treatment
Access to gene editing?**

Public Engagement

Vulnerable populations

Science translation

Informed Consent



Academy of Science of South Africa

National Health Act

National Health Research Ethics Council