

Genome Editing for Human Benefit: Ethics, Engagement and Governance

Singapore, 12 – 13 November 2019



Pecha Kucha: Pathway to genome editing in Nigeria

Simisola .O. Akintola Ph.D, Faculty of Law University of Ibadan, Nigeria

Recent scientific developments, have improved the precision of genome editing technology offering, increased therapeutic possibilities including correcting defective genetic mutations treating diseases and creating potentials for scientific advancement. On the other hand, using CRISPR-Cas-9 technology, human germline modification, increases the chances of science and scientists controlling and manipulating the human germ line including gametes and embryos raising fundamental questions of justice, equity, safety value law governance and science. The 2018 announcement that Chinese scientist He Jiankui successfully edited the genes of twin girls to protect them against HIV infection, increases the urgency surrounding the need for defining the legal and ethical paths ahead of the reception of the technology by evaluating the legal landscape and oversight of emerging technologies in Nigeria.

For instance, studies have shown from available data that there is a high prevalence of Sickle cell anemia and infertility in Nigeria compared to other African countries raising a presumption that there is a potential for a higher demand for reproductive technology services. CRISPR-Cas-9 opens unprecedented possibilities for such therapy and services. This presentation examines the legal and ethical issues of editing DNA of human embryos and identifies the regulatory challenges accompanying the futuristic development of genome editing technologies in Nigeria. It explores the range of mechanisms that have been adopted for regulation, oversight and mediation of public concerns. The absence of robust oversight and ethical control mechanisms to prevent technologies from being misused is a serious challenge for Africans and Nigerians to develop regulatory safeguards.