Gene editing safety regulation threatened by increasing ease of technology

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

The ease of use, accuracy and efficiency of the genome-editing tool CRISPR/Cas9 has led to its broad adoption in research, as well as to preliminary applications in agriculture and in gene therapies involving non-reproductive (somatic) cells. It is also possible in some jurisdictions to deploy CRISPR/Cas9, and related techniques, in human germline cells (sperm and eggs) as well as in early embryos.

In September, a network of more than 30 scientists, ethicists, policymakers, journal editors and funders called the Hinxton Group gathered in Manchester, UK, to address the ethical and policy issues surrounding the editing of human genomes in the early stages of development and in germline cells. Similar meetings have been and are being held elsewhere in the world, and several position statements have been published. Indeed, the US National Academies of Sciences, Engineering and Medicine is hosting what could be the largest such gathering next month, in concert with the Chinese Academy of Sciences and the Royal Society in London.

Even if much of the international scientific community and major funders of biomedical research agree that numerous technical and safety issues need to be addressed before genome-editing technologies could feasibly be used in reproductive clinical applications, however, the ease of use and accessibility of the technology make it ripe for exploitation by rogue or charlatan organizations — especially in jurisdictions where fertility clinics, which must be involved, are loosely regulated. After all, for the past decade, thousands of medical tourists have collectively paid many millions of dollars to receive unproven and unregulated stem-cell interventions internationally.

Read full, original post: CRISPR: A path through the thicket