This manuscript uses the Beijing Genomics Institute (BGI) as a case study to provide an ethical analysis of the existing regulatory framework in China for research involving human biospecimens. The topic is timely and important, given the expanded use of genomic sequencing in research internationally. It is a particularly apt case study, given the notable volume of genomic data being generated by BGI and its role in international collaborations. The manuscript provides a helpful review of the current approaches to governance, definitional gaps, and empirical data in China that bear on the oversight of biospecimen research in that country, and it connects this context to the specific issues and challenges facing BGI.

Minor Essential Revisions

I recommend devoting relatively less space to providing the essential case study details about BGI, and more space to the description the Chinese biomedical research governance institutions (which currently appear as two brief paragraphs at the end of the BGI section), under a separate heading. The ethical analysis is strong (“Discussion”) but would be better supported by a clearer picture of the regulatory backdrop and a more streamlined description of BGI.

The IQ study (p. 7) is problematic not only because the results may be stigmatizing and pose risks to privacy but also because the scientific premise itself (i.e., the link between IQ and learning disabilities) is tenuous. The problems associated with this example go beyond samples/data management; the study raises questions about the need for scientific review of future uses of collected samples, an important issue that would be useful to expand upon a bit in the manuscript.

The manuscript should clarify throughout about whether BGI or Chinese research more broadly is being referenced. For example, on page 10, first sentence of the discussion, are the sources of biomedical specimens unique to BGI or do they apply more broadly?

Although generally clear, the writing style is somewhat uneven throughout the text and would benefit from a good editorial review. Some of the language used is not neutral or isn’t the most widely accepted use of English, (e.g., on p. 4, “Their research capacity deserves pride” should read “Their research capacity is noteworthy”; on p. 5, “individual service is the further prospect” might mean
“individual service is a downstream goal.”

Include SFDA and RMB on the list of acronyms.

**Level of interest:** An article of outstanding merit and interest in its field

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**

I declare that I have no competing interests.