Who decides what is permissible? Genome editing of human embryos

by Associate Professor Yoshimi Yashiro, Uehiro Research Division for iPS Cell Ethics

n my previous essay, I discussed issues surrounding genome editing. By chance, the topic has since received inordinate media attention, bringing it to the forefront of scientific research to the general public. In some ways, genome editing can be viewed as "hot fashion" in the world of science policy and bioethics. Arguably the biggest debates arise with discussion on how this technology should be applied to the embryo. Current consensus refuses any embryos that have undergone genome editing to be used for impregnation.

But what about defective embryos available for basic research? How should these be used? On April 19, the Japanese government made an announcement with regards to responsible embryo research. Until then, with regards to other controversial science policy, the government had worked with academic societies to formulate guidelines, and originally this was to be the case for genome editing of the embryo as well. However, in practice, the government was too deferential to academic societies, abnegating responsibility and frustrating scientists who felt they were not receiving sufficient support.

Of course, the government should not completely absolve itself of responsibility for policy on such an important matter. Yet it is the scientists who are using the technology and best informed about its potential benefits and risk. According to the British sociologist Geoffrey Millerson, experts and professionals are capable of self-governing. Too much government influence makes policy vulnerable to political interests and not scientific ones and puts into question the whole purpose of having expert groups.

At the same time, neither would we want scien-

tists to have too much influence on policy making. The current situation is reminiscent of the discussions surrounding human ES cells. Then, it could be argued, researchers in regenerative medicine and embryology were not sufficiently consulted.

The notion of a country taking responsibility gives the sense of security. However, this is not always true, especially when policy could have potentially dangerous impact. In matters like genome editing of the embryo, a proper balance of opinions from experts and the general public is needed.

These are matters that researchers and society should give consideration.



Yoshimi Yashiro (Photo: Ko Sasaki)