

HEALTH & SCIENCE

Human Animal Chimeras



Nicola Davis reported at The Guardian on 8/3/19 that the ethical debate regarding the creation of human-animal chimeras has been “rebooted” as a result of a report in the Spanish newspaper *El Pais* that researchers produced monkey-human chimeras. Chimeras are organisms with cells from two or more individuals [species]. Japanese researchers recently received government support to create mouse-human chimeras. This past March the Japanese lifted a ban on allowing these embryos to develop past 14 days and being planted in a uterus.

Michael Cook, editor of BioEdge, wrote on 8/3, “In a stunning example of evading ethical controversy by exporting it, Spanish and American researchers have created monkey-human chimeras in China. The hybrid embryos will be destroyed after they develop a central nervous system and will not be brought to term. The experiment is ethically risky. What if the human cells develop in the monkey brain and become conscious? What if they become sperm or egg cells? Although the researchers, from the Salk Institute in California, and Murcia Catholic University brush off these fears, they are legitimate and widely shared... Letitia Meynell, of Dalhousie University told Gizmodo that it was “really depressing to see the willingness of scientists to engage in research tourism when the ethical standards in their home country make it impossible to conduct that research there. Certainly, these are ethically controversial issues. However, scientists who are willing to flout the ethics of their home countries and institutions should see themselves as obligated to make the ethical case for what they are doing.”

Davis explained that the development of chimeras is related to the lack of organs for transplantation and the issue of organ rejection. “Scientists believe organs genetically matched to a particular human recipient could one day be grown inside animals. The approach is based on taking cells from an adult human and reprogramming them to become stem cells, which can give rise to any type of cell in the body. They are then introduced into the embryo of another species... scientists have previously managed to produce both pig embryos and sheep embryos which contain human cells, although the proportions are tiny... only one cell in 10,000 was human. Pig-human and sheep-human chimeras are attractive in part because pigs and sheep have organs about the right size for transplantation into humans.”

Alejandro De Los Angeles of Yale University said the monkey-human chimeras were made to try to improve the proportion of human cells in the organisms. He stated, “Making human monkey chimeras could teach us how to make human-pig chimeras with the hope of making organs for transplantation. It could teach us which types of stem cells we should be using, or other ways of enhancing what’s called ‘human chimerism levels’ inside pigs.” De Los Angeles said the human-monkey chimeras are only permitted to develop for a few weeks, before organ formation. He has noted that monkey-human chimeras might provide a way to study neurological and psychiatric diseases in humans.

Robin Lovell-Badge of the Francis Crick Institute doesn’t feel the current experiments are ethically controversial because the embryos are not permitted to develop to the point where they have a nervous system. He did acknowledge that there would be concerns if the chimeras could develop more. “How do you restrict the contribution of the human cells just to the organ you want to make? If that is a pancreas or a heart or something, or kidney, then it is fine if you manage to do that. [But] if you allow these animals to go all the way through and be born, if you have a big contribution to the central nervous system from the human cells, then that obviously becomes a concern... Clearly if any animal born had aspects of human appearance, their faces, their hands, their skin, then I suspect, while scientifically very interesting, people might get a little upset with that.”

In response to the researcher’s admission that the study was being conducted in China where ethical standards are lower, Cook asked, “How do you classify that sort of attitude toward ethics? Arrogant, Undemocratic? Secretive? Publicity-hungry? Immoral? Take your pick.”

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Planned Parenthood Merger

In June, Planned Parenthood announced a major overhaul of its NYS affiliates. The new conglomerate, Planned Parenthood of Greater New York, will officially launch in December. It involves the merger of Planned Parenthood of NYC, Nassau County, Mid-Hudson Valley, Mohawk Hudson and Southern Finger Lakes. There will be 28 clinics with an annual income over \$103 million. The current CEO of PP NYC will become CEO of the new entity. Based on PP’s 2017 reported income, PP of Greater NY will be the second largest PP affiliate, only a few million dollars behind PP Mar Monte (CA). PP Hudson Peconic, which covers Suffolk, Westchester and Rockland Counties is not included in the merger (its CEO currently earns over \$100K more than the CEO of PP NYC). PP Federation of America claims the merger will save money and create more efficiency. Eliminating 4 CEOs will save about \$700K a year. In addition, the number of medical directors and other high-level staff will most likely be reduced. (Source: Jim Sedlak, executive director of American Life League, 6/6/19)