## Morality of Using Induced Pluripotent Stem Cells

To the Editor: In the Notes & Abstracts section of the Summer 2009 issue of the NCBQ, Rev. Austriaco discusses induced pluripotent stem cell development. Austriaco correctly notes that, in many cases, iPS cells have the same therapeutic potential as human embryonic stem cells. He cites several recent research articles and concludes that iPS cells can be used without "moral controversy"; however, in the complex, convoluted world of biotechnology research, moral controversy is often difficult to avoid.

Austriaco cites two papers which use viral vectors to deliver the genes to reprogram the cells into pluripotent stem cells. Production of the critical component of these studies, the viral vectors, was done using cell lines referred to in the articles as 293 and 293T. respectively. The full name of this cell line is human embryonic kidney (HEK) 293. In his essay "The Ethics of HEK 293" in the Autumn 2006 issue of the NCBO, Dr. Alvin Wong concludes that this cell line was taken from an electively aborted fetus and recommends researchers not use it because of its origin. The recent instruction Dignitas personae recommends against using cell lines such as these that are of "illicit" origin.2 In these cases, the very tool we could use to obviate the use of human embryonic stem cells is itself not without moral controversy.

There are many challenges for those who work in the biotechnology industry and for consumers of its products. Even discerning the relevant issues is difficult, let alone formulating a strategy that is morally sound. It is my hope that in the near future the Catholic bioethics community will provide

those of us who work in this field with sound guidance on these complicated, often conflicting, situations. Most importantly, I ask for prayers so that we might have the courage and wisdom to make the proper judgments in our quest to respect and preserve human life as we carry out our research.

James Brown Address withheld

<sup>1</sup>Frank Solder et al. "Parkinson's Disease Patient-Derived Induced Pluripotent Stem Cells Free of Viral Reprogramming Factors," *Cell* 136.5 (March 6, 2009): 964–977; and Cesar A. Sommer et al., "Induced Pluripotent Stem Cell Generation Using a Single Lentiviral Stem Cell Cassette," *Stem Cells* 27.3 (March 2, 2009): 543–549.

<sup>2</sup>See Congregation for the Doctrine of the Faith, *Instruction* Dignitas personae *on Certain Bioethical Questions* (December 8, 2008), n. 35.

## A Two-Limb Test in Humanae vitae

To the Editor: Can an act of condomitic intercourse ever be considered a marital act? I suggest that a direct implication of the reasoning in *Humanae vitae* (HV) is that condomitic intercourse fails to satisfy two relevant tests.

HV n. 12 states,

Etenim propter intimam suam rationem, coniugii actus, dum maritum et uxorem artissimo sociat vinculo, eos idoneos etiam facit ad novam vitam gignendam.

The fundamental nature of the marriage act, while uniting husband and wife in the closest intimacy, also renders them capable of generating new life.

According to the first test in HV n. 12, a marital act, of its fundamental nature, unites a couple in the "closest intimacy" (artissimo ... vinculo). It is immediately apparent that among acts excluded as a legitimate variation of the marital act is that union which occurs during condomitic intercourse.

Whether the purpose of condom usage in intercourse be contraceptive, protective against infection, or some other end, the fact is that a condom, successfully deployed, prevents a couple from reaching the *highest* (artissimo) level of intimacy which the marital act achieves according to its fundamental nature (intimam ... rationem), a level whereby the genitally related fluid of the male is transmitted directly to the female in the natural way.

Some might argue that condomitic intercourse achieves a greater level of union between couples than some other types of sexual activity. Nevertheless, however close a couple might feel themselves to be to each other during successful condomitic intercourse, no one can reasonably deny that there is an even closer level of intimacy they are unable to reach—that bond achieved as a result of natural intercourse. Their act is thus not an act of the closest intimacy.

Because it does not unite the couple in a bond of the closest intimacy, condomitic intercourse cannot be said to partake of what HV n. 12 has declared to be of the fundamental nature of the marital act. Condomitic intercourse, then, is not a marital act but an act of some other nature.

HV n. 12 then stipulates a second characteristic of the marital act. Of its fundamental nature, the marital act renders a couple capable of generating new life (eos idoneos etiam facit ad novam vitam gignendam).

To say that the marital act "renders a couple capable of generating new life" is not to say that the marital act cures any defects in either partner that might otherwise prevent the generation of new life. Rather, it is to say that this act, as opposed to acts that do not share its nature—such as washing the

dishes or playing bridge, for example—is an act which, if performed under a certain set of conditions, will enable a couple to realize their natural capability to generate new life.

The use of a condom during intercourse deprives the couple's sexual act of its generative power. This is so irrespective of the couple's intention. Couples wishing to prevent conception use the condom precisely because it impedes the complete activation of their generative capacities. Other couples might use the condom to prevent the transmission of infection during sexual activity, or for some other end such as heightened sexual pleasure, or even simple curiosity, and may not have the goal of contraception at the forefront of their mind. Regardless of the purpose of their condom usage, however, so long as the condom is functioning normally, the condomitic act that the couple is performing is not the type of act that renders them capable of generating new life.

I conclude that condomitic intercourse on this additional ground differs in its fundamental nature from the marital act.

A central premise in the argument of HV is the indissolubility of the link between the unitive and procreative goods in the marriage act. The articulation of this relationship in HVn. 12 implies that an act must satisfy both limbs of a test before it can be characterized as a marital act. The act must unite the couple in the closest intimacy, and it must render them capable of generating new life.

Condomitic intercourse, in a very straight-forward way, fails in both respects. It cannot be considered as some variation—albeit a less-than-ideal variation—of the marital act. The two acts differ in their fundamental natures. Like all other completed sexual acts which are not the marital act, condomitic intercourse can never be justified for reasons of family planning, the prevention of infection transmission, or indeed for any reason whatsoever.

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