

# Dignity

THE NEWSLETTER  
VOLUME 9  
OF THE CENTER  
NUMBER 1  
FOR BIOETHICS AND  
WINTER 2003  
HUMAN DIGNITY

## Inside:

### The Interface Between Science and Ethics: Probing the Deeper Questions

**Nancy L. Jones, Ph.D.**, Associate Professor of Pathology,  
Wake Forest University Health Sciences (Winston-Salem, NC)

*Editor's Note: Center Fellows Nancy Jones and Bill Cheshire represented CBHD at the American Society of Bioethics and Humanities' 5th Annual Meeting, held October 24-27, 2002 in Baltimore, Maryland. Drs. Jones and Cheshire participated in a panel discussion entitled "Artificial and Asexual Human Embryos: Grappling for Policy Derivation." Joining them on the panel were Glenn McGee, Ph.D. of the University of Pennsylvania's Center for Bioethics and Christine Coughlin, J.D. of Wake Forest University School of Law. Dr. Jones shares below some of the insights gained from this event and, more generally, from her position as a research scientist. Anyone wishing to successfully engage the complex ethical issues raised by biotechnology would do well to take into account the considerations Dr. Jones presents below before entering into the discussion.*

Debates over bioethical issues necessarily involve people from diverse circles. Scientists, health care professionals, lawyers, clergy, and representatives from other disciplines join formerly-trained bioethicists in assessing the appropriateness of various forays within medicine and biotechnology. It is my hypothesis that the way scientists think is often so fundamentally different that the "answers" to bioethical issues offered by the non-scientific community are perceived as (at best) only minimally relevant by those who are actually pursuing the research in question. Furthermore, I believe that the current system of medical ethics that governs clinical practice and human subject research is inherently limited in its ability to speak to the ethical decision-making of biomedical "bench" (laboratory) researchers. Consequently, the bioethics com-

munity is often not prepared to address the deeper fundamental "scientific" justifications for experimenting on the human embryo that are already percolating throughout the scientific community.

The next affront to our core cultural values will arise from the resultant biological revolution—rather than from clinical practice and clinical research. The same strategies for bioethical engagement that resonate with a physician are often merely noise to someone trained to "be a scientist" who embraces pragmatism. How can non-scientists effectively engage the ethical debates spawned by emerging biotechnologies? Using as an example the debate over human embryonic stem cell research, I have offered an initial framework for facilitating successful dialogue below.

#### **Why Do Many Scientists Desire to Experiment Upon Human Embryos?**

Before simply speaking out against research on human embryos, the above question should be thoughtfully entertained. Embryonic stem cell research, "therapeutic" cloning, and regenerative medicine are merely second-tier justifications for conducting research on human embryos. The first-tier justifications were linked to clinical practice and "research" on human reproduction. The more recent wave of justifications may have been publicized so aggressively in part because the therapeutic benefits allegedly promised by stem

**"....the way scientists think is often so fundamentally different that the 'answers' to bioethical issues offered by the non-scientific community are perceived as (at best) only minimally relevant by those who are actually pursuing the research in question."**

- 1 The Interface Between Science and Ethics: Probing the Deeper Questions
- 2 Embryo Adoption or Embryo Donation? The Distinction and Its Implications
- 5 Movie Review
- 5 News from the Field
- 6 Book Review
- 7 Center Resources
- 8 Save These Dates
- 8 Center News

THE CENTER FOR  
**BIOETHICS**  
AND HUMAN DIGNITY

2065 Half Day Road  
Bannockburn, IL 60015 USA  
847.317.8180, (PHONE).  
847.317.8101 (FAX)  
info@cbhd.org (EMAIL)  
www.cbhd.org (WEB SITE)

cell research, cloning, and regenerative medicine have such widespread appeal. However, the basic rationale for why scientists seek to engage in human embryo research is actually much more deep-seated. This is evident in the explanation that Dr. Craig Venter and Dr. Hamilton Smith offered to the *Washington Post* (November 21, 2002) to justify their plan to create a man-made microbe containing the minimum number of genes needed to sustain life: “The goal is to fundamentally understand the components of the most basic living cell.”

For most scientists, the primary motivation driving research on human embryos is rooted in the fact that the embryo is the earliest form of human life and therefore the best experimental system for understanding human development. These scientists believe that if they can discover how

**“Perhaps nowhere is the maxim ‘What can be done should be done’ more exalted than in the context of scientific research.”**

the embryo is programmed, they can eventually understand all of human functioning. This fundamental knowledge is the carrot that scientists are essentially chasing; therefore, basing objections to embryonic stem cell research on the premise that there are alternative methods for securing equal (and perhaps greater) therapeutic benefits will likely prove to be only a temporary deterrent to research on human embryos.

#### **Why Do Many Scientists View Human Embryo Research As Ethically Permissible?**

Most research scientists are generally removed from the medical setting and its emphasis on clinical ethics and human subject research. For decades, scientists have been probing animal embryos in their quest to obtain fundamental knowledge about normal development, nuclear programming, patterns of inheritance, and tissue/organ growth and maintenance. Within the context of such experimentation, animal embryos are not even considered to be “animals” and are not governed by Animal Care and Use Guidelines. Only the “adult” animals that donate the oocytes or sperm to produce, or provide wombs for, the embryos to be experimented upon fall under the guidelines for animal welfare supervision. This mentality toward embryonic subjects also commonly

characterizes the attitudes of scientists toward *human* embryos—leading to the validation of human embryo research.

#### **Why Do Many Scientists Oppose Restrictions on Human Embryo Research?**

Contrary to the suspicion of some, scientists pursuing research on human embryos are *not* motivated by a simple base desire to destroy human life. As mentioned above, a primary goal of such research is, rather, to determine the fundamentals of human development and, by extension, to improve human health. Many scientists therefore regard restrictions on embryo research as nothing but barriers to benefiting the human race. Perhaps nowhere is the maxim “What can be done should be done” more exalted than in the context of scientific research. In a 2001 issue of *Fertility & Sterility* (76(1):132-37), Lanzendorf et. al. articulated a crucial concept that the bioethics community must fully appreciate. To justify the creation of embryos as a means of obtaining embryonic stem cells for research purposes, they maintained that biomedical science has “the duty to provide mankind with the best understanding of early human development.” However, to invoke the language of “duty” raises in my mind another question: What *limits* the duty scientists have to acquire knowledge intended for the benefit of humanity?

#### **A Charge to the Bioethics and Scientific Communities**

In keeping with our focus on embryonic stem cell research, I would like to clarify that the potential alternative of conducting research on “adult” stem cells is not without merit. However, I think that a stronger argument can be made than the often cited claim that they will afford the same (or even greater) therapeutic value as would embryonic stem cells. Let me explain. Although we are correct in the analysis that adult stem cells do presently appear to be more clinically beneficial than their embryonic counterparts, the field of regenerative medicine and stem cell transplantation is still in its infancy. There is therefore no guarantee that adult stem cell research will continue to hold the advantage over embryonic stem cell research. Rather than tie their position to such a tenuous foundation, those in the bioethics community must articulate a precedent for demanding a *morally higher ground* that scientists are obliged to uphold. The good news is that there is already such a precedent in both research and medicine: scientists and medical researchers don’t necessarily pursue

knowledge via the easiest venue possible if someone can show them that doing so would be unethical. For example, some animal research that may have been considered ethical just ten years ago is now restricted as the result of increased concern for animal welfare. This is the case even though the experimental design may be “compromised” as a result. It would seem, then, that rather than limiting the heights to which scientists aspire, bioethicists can help spur them on to even higher levels of excellence by challenging them to engage only in experiments that are staked on morally high ground.

#### **Strategies for Engagement**

The more I consider the use of human embryos as research subjects, the more I am confronted with the realization that those who object to the use of human embryos in research rarely address the fundamental issues that are driving such experimentation. We must recognize anew that the battle is not against flesh and blood, but against principalities and spiritual forces. Scientists are *not* the enemy. Although they may propose protocols that are unethical, our battle is not against them personally.

I believe that forming genuine relationships with scientists and actually hearing their concerns, motivations, and desires will prove essential to effectively address the next generation of bioethical challenges that is fast encroaching upon us. Secular bioethicists have long been providing guidance behind the scenes through serving on university ethics committees and building relationships with scientists. Christian bioethicists also need to volunteer their services and partner with scientists (as well as with the secular bioethicists) at their local universities. University committees *need* outside community membership to function and may likely welcome such participation.

We scientists are trained to be doubters, which means that we need to be presented with the facts behind an ethical interpretation and given the opportunity to think through them for ourselves, rather than being told what to believe or do. The task of Christian bioethicists is to stay ahead of the bioethics current, anticipating *with* the scientists what various novel experiments will mean and suggesting ethical ways to pursue our common interest in serving humanity. ■