Pre-implantation Sex Selection in Japan
By Gregory A. Plotnikoff, MD, MTS, FACP

Recently here in Japan, Tetsuo Otani, MD, a noted obstetrician/gynecologist in the city of Kobe, acknowledged that he conducted pre-implantation genetic diagnosis (PGD) for sex-selection on three women. Although this made headlines in all of the Japanese newspapers, I do not believe that it was covered in the US press. For this reason, I will describe the details of the case and offer some comments on its significance.

PGD is a technique used to identify genetic defects in embryos created through in vitro fertilization (IVF) before transferring them into the uterus. When the embryo is at the 6–8 cell stage, 1–2 cells (blastomeres) are removed and sent to the genetic laboratory for diagnosis using either polymerase chain reaction (PCR) or fluorescence in situ hybridization (FISH) techniques.

PGD is unlike current post-conception diagnostic procedures, eg, amniocentesis or chorionic villus sampling, because if the results are positive, no pregnancy, as classically understood, is terminated.

FROM THE DIRECTOR ...

What’s at Issue in the Stem Cell Research Debate?
By Jeffrey Kahn, PhD, MPH

Embryonic stem cell research understandably evokes strong and diverse opinions, and so it is important that diverse opinions have a place in our societal debates. But it is also important that the information and arguments in these discussions are clear and accurate, especially when there is so much disagreement over them.

The fundamental issue in embryo research is the morality of doing research on human embryos. To address it we must ask and answer the question of the moral status of human embryos. There is a wide range of articulated views on this issue, from arguments that such early stage embryos are mere tissue with no greater moral status than the cells we can scrape out of the insides of our cheeks, to arguments that early stage embryos ought to enjoy the same moral status of any of us living, breathing people.

The vast majority of Americans, supported by the official statements of numerous religious groups and ethics scholars, seem to think that the answer lies somewhere in between these two polar positions. The view is something like the following: embryos are collections of living human cells but are not persons.
The affected embryos are simply not transferred to the uterus. PGD is performed in conjunction with IVF and is offered for both fertile and infertile couples.

A quick web search reveals that multiple clinics advertise such services in the United States (US), United Kingdom (UK), and Germany. In all advertised services, screening is performed only for inherited disease. These advertised services can include detection of single gene disorders such as Tay-Sachs, chromosomal disorders such as Turner's syndrome or X-linked disorders such as fragile-X, hemophilia A, neuromuscular dystrophies and vitamin D resistant rickets. The X-linked diseases are the subjects of some concern because the PGD technology both allows and requires sex selection of the embryo.

With this technical capacity for sex selection of the pre-implanted embryo, couples may seek PGD for reasons unrelated to disease. Strong arguments have been expressed regarding this on the grounds of sex discrimination ("female oppression") or the ethics of expanding control over specific child characteristics ("designer babies"). However, parents have already been selecting for specific characteristics. For example, Turner's syndrome is neither life threatening nor disabling. And, at the University of Minnesota, PGD with HLA typing has been used to save the life of a sibling affected with Fanconi's Anemia.

The Japanese Society of Obstetrics and Gynecology allows PGD only in cases of possible severe genetic disorders. Applications must be filed with the society for approval. Since guidelines were formulated in 1998, no approvals have been granted. However, according to Shohei Yonemoto, who heads the Center for Life Sciences and Society, the society's guidelines have no coercive authority. As quoted in the February 5 Asahi Shim bun newspaper, "If a doctor rejects the guidelines as not responding to the needs of patients, all that will happen is that he is expelled from the society."

Dr. Otani admitted that he did not file an application for any of the cases. He described the first case as a young woman in her 30's who already had two boys and wanted a girl. After trying in-vitro fertilization (IVF) 20 times before becoming pregnant, ultrasound diagnosis determined that the sex of the child was male. She aborted the pregnancy. The second case was a woman physician in her 30's who wanted a male child. The third case was a woman in her 40's who was concerned about chromosomal disorders (in Japan, unlike US, UK, and Germany, such preimplantation genetic diagnosis has not been approved). The arguments he put forth for his actions were reported in the Asahi Shim bun and the Japan Times as follows:

Non-maleficence: "I did not want to harm the woman’s body. If a woman decides to have an abortion after the gender of the child is known through an ultrasonic exam during the second trimester, it will be a large physical burden. Abortions leave scars in the body and mind. This diagnosis is much more humanitarian."

Paternalism: "Unless the PGD was conducted, we would have had to make the difficult decision of asking the women to abandon giving birth… I thought it would be better to diagnose the embryo before implanting it in the womb."

Consequentialism: "Amid rampant discussion on the problems of (Japan's) declining birthrate, it would benefit society if women who want many children can have babies of the sex they desire."

Personal conscience: "I work according to my conscience. I cannot say that I will refuse to follow through with a procedure that has been rejected by the (professional) society if a patient asks me directly."

Ethical consistency: "If (PGD) gender selection is to be rejected, then abortions in the second and third trimesters must also be rejected."

These arguments follow a very traditional line of reasoning. Japan's hierarchy of moral responsibility means that a physician's duty is to support and protect his or her patients with both strength and courage. However, Dr. Otani's actions did not follow customary decision-making as he appeared to act independently and without the consensus agreement of his peers.

The latter point may be most important. "Unapproved," "without permission" and "without the Japan Society of Obstetrics and Gynecology consent" were the chief criticisms expressed in the media. This reflects the crucial importance Japan places on social approval.

The Japan Society of Obstetrics and Gynecology's board of directors has voted to expel Dr. Otani for knowingly violating the Society's rules. This decision must be ratified at the Society's general meeting in April after Dr. Otani explains his reasoning.
This case raises some questions of interest to ethicists. First, what grounds the ethical reasoning for the Society’s guidelines? Second, what might the US, UK, and Germany have to learn from this case?

Japan is a country in which 70% of its citizens profess to be Buddhists and 70% profess to follow Shintoism (native Japanese animist religion). So one might think that ethical reasoning would have some ties to sacred scripture. But in fact, there is no scriptural authority in Japan. Abortion is widely practiced in this Buddhist country.

Likewise, with Japan’s strong economic ties to the West, one might find philosophical arguments grounded in classic Western texts. However, in Japan, there is no a priori philosophical basis for morality. The idea of transcendent, universal pure reason leading to universal moral laws is more than just foreign to the culture. It violates self-evident truths and common sense.

The belief that meaning is purely objective and fixed, that statements can be true or false objectively independent of any human understanding of the world, is completely contrary to the structure of the Japanese language and the entailing beliefs. Japanese is the most inferential language in the world. It is incredibly metaphorical in its structure. Adjectives can frequently be used for opposite meanings. Sentences can require the listener to hold multiple, conflicting interpretations until the very end of the sentence. There is a distinct comfort with contradiction and ambiguity.

In Japan, truth is found in the observation of nature, body movements and emotion. As a culture, Japan’s preferred starting point for taking in information is the senses rather than cognition. Likewise, Japan’s cultural preference for processing information is to start first with the impact on persons rather than a dispassionate, objective framework. The consistency and thoroughness by which Japan’s preferences guide the culture challenges the West’s claim for special access to universal moral laws through pure reason.

Hence, the Society is likely to ground its arguments in an intuitive sense of what is right outside of a logical, objective, “Western” framework. This sense may in fact be guided by a sense of social approval by the outside world. Japan’s guidelines are certainly stricter than in the US, UK, and Germany where PGD screening for inherited disease would be considered reasonable. Judging from the media, concern regarding eugenics and discrimination against those with genetic disorders are likely to be considered very important in Japan.

Likewise, the Society’s reasoning might be guided in part by the potential financial, social, and cultural impact of widespread PGD. Abortion has been legal in Japan since the 1948 for cases of rape, hereditary anomalies, or damage to a woman’s health including her socio-economic health. Although oral contraceptives were eventually approved for prescription use in 1999, today these are not widely prescribed and abortion remains the leading form of birth control.

What might this case mean for the West? My hope is that this case will stimulate ethicists to broaden their capacity to respond to future cases. Certainly as PGD becomes more widely known, there will be other challenges to define with precision what severity of disease is appropriate for screening. There may be calls for required genetic counseling and PGD to be regulated by specific legislation. Likewise, Dr. Otani’s challenges regarding the “humanitarian” aspects of PGD compared to ultrasound guided second-trimester sex-selection and abortion may be echoed by others in the West and should be taken seriously.

Furthermore, I hope to stimulate more thought regarding the challenges cross-cultural ethics bring to modern Western political philosophy and bioethics. In a world where infectious disease, environmental damage and climate change do not respect borders, perhaps the most important borders today are philosophical, cultural and linguistic. For the sake of the world, I strongly believe that we need to deepen our appreciation for these differences. In regards to proactive preparation on future PGD cases and deeper appreciation of cross-cultural philosophy, there is a great term here in Japan to encourage our hard work: Gambatte kudasai!

References


(Per Japanese tradition, article authorship is not acknowledged in newspapers.)


Gregory A. Plotnikoff, MD, MTS, FACP, Faculty Associate, Center for Bioethics, University of Minnesota, is currently Visiting Associate Professor, Keio University Medical School, Tokyo, Japan. In addition to studying Kampo, traditional Japanese herbal medicine from both a clinical and a research perspective, Dr. Plotnikoff is proud to report that he is actively publishing and lecturing in Japanese.
Letter to the Editor

By Clifford Earle Bartz

Federal Inmate Promises to End Organ Shortage Within 3-5 Years

My name is Clifford Bartz and I am a Federal inmate. I have challenged the medical profession, the US Department of Justice and the US Congress over a concept that can end all organ shortages in the country within 3-5 years.

My concept involves donation by medically checked inmates, for extra “good-time” for the inmate. My crusade now in its eighth year has not gone unnoticed, and has received positive feedback by the public, transplant surgeons, and professors of medical ethics. I admit ethical and moral considerations favor altruistic donations, which does show this system by itself does not fill the demand. My view is that people would accept an organ from Dracula.

I have contacted medical officials and argue that the outdated 1984 National Transplant Act must be amended to provide organs for would be recipients. My research shows from the procurements agency, the organ banks, the hospital, everyone involved will receive payment for their services and the recipient “foots the bill.” The donor donates with altruistic intentions, but everyone around is paid, where are the ethical and moral considerations? Since a woman can sell her eggs, a man his sperm, and body tissues are “big business” in America, why can’t organs be used in this concept, but under control and supervised by the US Department of Health & Human Services and United Network for Organ Sharing (UNOS). Also, over 85% of all plasma donors are paid donors. Because of public opinion, I argue that any inmate who is serving time for murder, rape, or child molestation would not be able to participate. Few states are looking into inmates for donors. In a case in Pennsylvania (“A Kidney or Jail” Philadelphia Daily News, April 4, 2001, pg. 3), the judge allowed a 41 year old convicted man to donate a kidney to his sister to avoid a 10-20 year sentence. (Commonwealth v. Barry Marris, CP #0012-0355.) With now over two million people incarcerated, and 85,000 people requiring a transplant, this concept should not be ignored.

Some medical ethicists may argue that incarceration constrains an inmate’s autonomy and that a choice of this magnitude may have the inmate make a decision with undue coercion. But, in all courts, many defendants plead out to a lesser sentence. If not, after trial, the defendant (if found guilty) receives a harsher sentence—intimidation and coercion (on the government’s part) at its best. With this concept, all inmates would agree in the same manner of US Supreme Court rulings in all plea hearings, in a knowing, voluntary, and intelligent manner, so as to dismiss any kind of coercion.

The mercy attached to this concept is not first at hand for the inmate in the form of sentence reduction, but for the recipient and their families. This concept would be used as a “secondary list” not to replace the current system.

The author of this article is most interested in feedback. For a full copy of his concept, he can be contacted at:

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The potential they represent puts them into a different category than mere tissue, but the very early stage in development does matter in terms of their moral status. Human embryos therefore merit respect in how they are used, but not the same level of respect we accord persons. So where does this leave us?

If human embryos had the status of human persons, then it would be immoral to do embryonic stem cell research that destroyed embryos. But if embryos are not persons, then so long as we show careful respect in their use it may well be immoral not to perform promising stem cell research. In the United Kingdom, embryos left over from in vitro fertilization are required to be discarded if they are not used within five years. Here in the US, like in England, embryos that would otherwise be discarded seem an acceptable and responsible source for embryonic stem cell research.

The sometimes overlooked fact is that embryo research is and has long been legal under the laws of our country. Federal funds may not be used for most embryo research, but any and all such research is permitted so long as it is supported by non-public funding, a position endorsed most recently by none other than the Bush Administration. To the extent that the law represents society’s sense of at least our basic moral rules, as I believe it does, the fact that embryo research is fully legal is meaningful.

This context is crucial to understanding the facts in the debate about embryonic stem cell research, and will in the process better inform the diverse opinions, insights and perspectives that make up healthy discussion. Only then can we proceed in ways that shed more light and less heat on controversial topics like embryonic stem cell research.

**Center News**

John Song, MD MPH, MAT, was awarded a 2004 Gold Foundation Faculty Humanism in Medicine Award by the Minnesota Medical Foundation at the University of Minnesota and a 2004 Outstanding Community Service Award by the University of Minnesota Office of the Executive Vice President and Provost.

Dr. Song founded the Phillips Neighborhood Clinic in March 2003. The clinic provides high-quality, affordable and, in many cases, free-health care to uninsured and underinsured people living in the Phillips Neighborhood of Minneapolis, with a focus on those who are homeless. No one is denied care for lack of ability to pay.

The Center for Bioethics welcomes the following visiting scholars:

Joy Bickley Asher, PhD, visited the Center in April 2004. Professor Asher is from Victoria University of Wellington, New Zealand. Her work here focused on issues on end of life care in hospital settings and the ethical aspects of the international nursing shortage.

Steven Edwards, PhD, School of Social Science, University of Wales, will visit the Center in May 2004. The focus of his work is on the relationship between disability and theories of the good human life.

Helen Kohlen, PhD candidate, University of Hanover, Germany, will visit the Center in July 2004. The focus of her work is on exploring the participation of nurses on ethics committees.

**Correction**

Recent Faculty Publications

**ARTICLES**


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Visit our website at www.bioethics.umn.edu

The Center for Bioethics website includes:

- Information on graduate studies in bioethics, course offerings, and other educational programs
- Center faculty descriptions and their research interests
- Current and past issues of the *Bioethics Examiner*
- Annual Reports
- Bioethics Overviews
- Upcoming events and announcements
- Links to other bioethics resources
Calendar of Events

**MAY 3**
Jeffrey Kahn, PhD, MPH, will speak on “Caring or Conflict at the End of Life? The Case of Proxy Consent for Organ Donation” at the Florence Schorske Wald Lectureship in Palliative/Hospice Care sponsored by the Katharine J. Densford International Center for Nursing Leadership, University of Minnesota School of Nursing, Minneapolis, MN. For information, email: ljvegell@umn.edu.

**MAY 6**
Jeffrey Kahn, PhD, MPH, will speak on “The Ethics of Creating Stem Cell Donors” at Memorial Sloan Kettering Cancer Center Pediatric Grand Rounds, New York, NY. For information, call 212-639-6410.

**MAY 13**
Jeffrey Kahn, PhD, MPH, will speak on “Little Cells, Big Issues: Ethics of Stem Cell Research” at the Elder Learning Institute, University of Minnesota, Minneapolis, MN. For information, call 612-624-7847.

**MAY 21**
Steven Miles, MD, will speak on “The Influence of Pharmaceutical Marketing on Physicians” at Abbott Northwestern Hospital, Minneapolis, MN. For information, email: richa031@umn.edu.

**MAY 22**
Jeffrey Kahn, PhD, MPH, will speak on “Ethical Issues in Pre-Implantation Genetic Diagnosis (PGD)” at the University of Minnesota Medical School Annual Reunion, Minneapolis, MN. For information, visit www.mmf.umn.edu/3_alumni/index.html.

**MAY 26**
Jeffrey Kahn, PhD, MPH, will speak on “Pre-Implantation Genetics and Ethics of Creating a Stem Cell Donor” at the University of Cincinnati Medical Center, Cincinnati, OH. For information, email: Maggie.brennan@uc.edu.

**JUNE 2**
Steven Miles, MD, will speak on “Pharmaceutical Relationships” at Abbott Northwestern Hospital, Minneapolis, MN. For information, email: richa031@umn.edu.

**JUNE 5–10**
Bioethics Institute 2004 will be hosted by South Dakota State University, Rapid City, SD. The workshop is sponsored by the USDA and NABC. 6/6 Jeffrey Kahn, PhD, MPH, will speak on “Ethics and Genetic Medicine: A Case in Point” and 6/7 “Research Ethics.” For information, visit www.biomicro.sdstate.edu/granholn/bi2004.htm or call 605-348-2539.

**JUNE 8–13**
Intensive Bioethics Course sponsored by the Kennedy Institute of Ethics, Georgetown University, Washington, DC. For information, visit www.georgetown.edu/research/kie or call 202-687-8099.

**JUNE 9–10**
6/9 Jeffrey Kahn, PhD, MPH will speak on “Ethical Issues in Emerging Technologies” and 6/10 “A Model for Implementing Training in Research Ethics” at the 10th Annual conference on Teaching Survival Skills and Ethics, in Snowmass, CO, sponsored by the University of Pittsburgh, For information, email: survival@pitt.edu.

**JUNE 18**
Jeffrey Kahn, PhD, MPH, will speak on “Ethical Issues in Living Non-Directed Donation” and on “Ethics and Financial Incentives for Living Donation” at the Exploring the Crisis in Transplantation Perspectives conference on Living Dononation at the Kidney & Urology Foundation of America, New York, NY. For information, call 732-866-4444.

**JUNE 23**
Steven Miles, MD, will participate on a panel “The Media and Public Health” at the Minnesota Public Health Association Annual Meeting, Chaska, MN. For information, email: Lisa.Pogoff@state.mn.us.

**JUNE 25–27**
Jeffrey Kahn, PhD, MPH, will speak on “The Case Against Organ Trade,” at the 2nd International Conference on Abdominal Organ Transplantation from Living Donors, in Taormina, Sicily, Italy, sponsored by University of Illinois-Chicago. For information, call 612-625-1485.

**JULY 7–9**
Joan Liaschenko, RN, PhD, will speak on “Clinical Geographies of Care: Margaret Urban Walker’s Contribution to a Feminist Metaethics for Nursing” at the University of Wales, Swansea. For information, email: susan.jones@swansea.ac.uk.

**SEPTEMBER 30–OCT 3**
Jeffrey Kahn, PhD, MPH, will speak on “Psychosocial and Ethical Issues” at the Forum on Fertility and Reproductive Issues in Survivors of Childhood Cancer at William Guy Forbeck Research Foundation, in Chatham, MA; sponsored by the Department of Pediatrics, University of Minnesota. For information call 612-626-2902.
The Bioethics Institute 2004
June 5 – 10, 2004 Hotel Alex Johnson, Rapid City, SD
South Dakota State University

This unique conference is devoted to providing a foundation for extension personnel and faculty in the biological, agricultural, and environmental sciences to incorporate bioethics into their courses and extension activities. Topics include: Teaching Life Science Ethics Using Active Learning; How to Write Case Studies; Ethics and Animals; Genetic Engineering; Moral and Legal Issues of Intellectual Property Rights; Research Ethics; Bioethics Online; Environmental Ethics; Science and Politics; and on How to Analyze Ethical Arguments.

Travel grants and development awards are available for eligible participants. For details, visit: http://biomicro.sdstate.edu/granholn/bi2004.htm.

The Institute is sponsored and funded by the United States Department of Agriculture (USDA) and the National Agricultural and Biotechnology Council (NABC).