

# The Human Body Shop

*Does America Want a 'Free Market' in Organs and Tissues?*

By Andrew Kimbrell

**M**ORE AND MORE Americans are selling themselves—piecemeal. Blood, semen, eggs, even children: All are part of a fast-growing market in human “products” including tissues, organs and subparts. The bio-material boom has meant billions in profits from the sale, patenting and transplantation of human materials and has led to extraordinary, if occasionally troubling, possibilities for research.

Boosted by controversial advances in biotechnology and beset by a chronic shortage of human materials, the body-parts business has also created chaos in property, contract, tax and patent law. Legislative and court battles have erupted across the country, raising novel and complex legal issues. Donors are fighting for a share of the profits to be made from their own tissues; couples are fighting for ownership of frozen embryos; women are fighting to get out of child-bearing contracts. Legislatures are debating bans on organ sales. And the nation at large is facing unprecedented questions of public ethics.

## The Body as Commodity

**S**ince the abolition of slavery, our Constitution no longer permits the ownership or transfer of the whole human. However, the United States has traditionally allowed the sale of human materials.

Blood is the most common. The use of paid donors for blood used in transfusions has declined from about 80 percent of the market in 1965 to less than 1 percent today. But that still leaves plenty of potential. The commercial blood industry—which supplies blood for research and pharmaceutical production—pays over 95 percent of donors at a rate of about \$10 per visit. Last year, the 400 U.S. commercial centers received close to 7 million liters worth almost \$450 million; and America is a world leader in blood exports—a \$2-billion industry worldwide.

There is also a growing market for rare blood. In one remarkable case, hemophiliac Ted Slavin discovered that his blood contained an unusually high concentration of antibodies to the hepatitis B virus. Slavin began marketing his blood to commercial organizations at a rate of about \$6,000 a pint. (He gave it free to non-commercial hepatitis researchers.) Eventually, he formed a company, Essential Biologicals, to market his and other rare blood types. The legal status of blood as commodity has confused courts around the country and has tied the Internal Revenue Service up in knots. [See box.]

Organs have also become big business. Each year about 9,000 kidneys, 1,700 hearts, 2,200 livers, 450 pancreases, 70 heart/lung sets and 30,000 corneas are transplanted at a cost to recipients of nearly \$1 billion. And there is plenty of growth potential: As of last May, 20,610 people were awaiting organ donations. Every 30

minutes a new name is added to the list, which includes over 17,000 waiting for kidneys and 1,652 for hearts. About one out of four heart-transplant candidates dies before finding a donor.

Although transplantation is lucrative for the medical profession, the National Organ Transplant Act (NOTA) prohibits the sale, in interstate commerce, of organs or organ subparts. The 1984 law was enacted in response to “organ brokers” who were advertising for paid donors. (The going price for a kidney: \$5,000 to \$8,000.) Citing the potential for exploitation of the economically disenfranchised—who might sell an organ to pay off a mortgage or feed their children—as well as the problem of obtaining quality organs from paid donors, NOTA calls for penalties of up to five years imprisonment and \$50,000 in fines. It specifically exempts “replenishable tissues such as blood or sperm” and allows payment for removal and processing of organs.

Only two years after NOTA was passed, a new controversy arose: Fetal organs and tissues were being experimented with in the treatment of various disorders such as Parkinson’s disease. There were predictions that the nascent industry would “dwarf” that in adult organs. Several companies began to commercialize fetal organs and tissues. While many were repulsed at the prospect of women deciding to abort, or change the method and manner of abortion, in order to get saleable fetal organs, others felt that deciding what to do with fetal remains after abortion was a legitimate choice for women. In 1988, Congress amended NOTA to apply the same restrictions imposed on adult organs to those from fetuses.

Of course, many other human “reproductive products” are for sale. Commercial traffic in semen is fairly common. Nearly 11,000 physicians provide artificial insemination to about 172,000 U.S. women each year. Almost half are inseminated with sperm from anonymous donors, usually medical-school students. Public facilities pay donors an average of \$34 a “visit”; private facilities offer \$44. Each year, Americans spend over \$160 million on artificial insemination.

Recently clinics have opened donor egg programs. Women undergo surgery for the specific purpose of providing eggs for implantation in infertile women. The recipient is generally a woman who cannot produce eggs or whose eggs are defective or carry a genetically transmittable disease. The donor is paid \$900 to \$1,200 for the egg collection. The recipient pays about \$5,000 per attempt.

The most controversial extension of the reproductive marketplace is contract childbearing, sometimes called surrogacy, whereby businessmen arrange for women to sign commercial contracts which commit them to produce children for a fee of \$10,000 to \$15,000. Clients pay up to \$40,000 for a healthy child, and most contracts provide for quality control—i.e. mandatory testing and abortion of an “abnormal” fetus. As of last March, 32 surrogate brokers were operating around the country, many of them “basement” operations, 13 of them in California. Experts estimate that some 2,500 American women have

signed surrogate contracts, with about 1,500 babies being sold.

In February 1988, in the "Baby M" case, a unanimous New Jersey Supreme Court declared the surrogate contract "illegal and perhaps criminal" and called surrogacy "baby-selling pure and simple." Since then, nine states have outlawed the practice; but New Hampshire and Arkansas have specifically allowed for surrogacy contracts, albeit with several restrictions. A bill to prohibit commercialized childbearing is pending in Congress, but passage this session seems unlikely.

### Profits and Patents

**T**he biotechnology revolution has dramatically altered the value of body parts. Genetic engineers splice, clone and recombine material, often using human cells as "miniature factories" to produce profitable cell lines and other products. The Supreme Court gave added impetus to this trend in a controversial 1980 decision that established that new living matter—including human matter—could be patented just like a drill press or toaster. This has led to the patenting of microbes, plants and most recently the first patent on a genetically engineered animal.

This climate has produced a variety of peculiar legal cases. In one, John Moore sued the University of California claiming that he is entitled to a share in the profits the university is gaining from a cell line developed from his tissues. In 1976, Moore was diagnosed with an extremely rare form of cancer, hairy cell leukemia, and his spleen was removed. The doctor performing the operation and his technician developed and patented a cell line from a sample of Moore's spleen and assigned the patent to the regents of the University of California. The cell line was predicted to have a long-term market value of \$3 billion. Hundreds of thousands of dollars have already been paid to the developers.

Moore sued in 1984. Two years later the trial judge dismissed his complaint as failing to state a legally cognizable claim. Moore appealed and in July 1988, the California Court of Appeals reversed the lower court and held that Moore had a property right in his own bodily tissues. The court stated, "The essence of a property interest—the ultimate right of control—therefore exists with regard to one's human body." The court also held that Moore's consent to surgery did not imply consent for commercial exploitation of his tissues.

Judge Rothman, writing for the majority, said the "defendant's position that plaintiff cannot own his own tissue, but that they [the University] can, is fraught with irony. Apparently defendants see nothing abnormal in their exclusive control of plaintiff's excised spleen, nor in their patenting of a living organism derived therefrom. We cannot reconcile defendants' assertion of what appears to be their property interest in removed tissue and the resulting cell-line with their contention that the source of the material has no rights therein." The university has appealed the case to the California Supreme Court. A decision is expected next month, but the case will likely end up at the U.S. Supreme Court.

### Setting Limits

**T**he current confusion over biologic sales has prompted a growing debate over regulation. Some advocate the creation of a "free market." According to Lori Andrews of the American Bar Foundation, "Donors, recipients and society will benefit from a market in body parts." Legal scholar Roy Hardiman, arguing on

behalf of for-profit sales, writes: "The advent of biotechnology has made the body valuable property. . . . Unfortunately the courts have yet to consider its pecuniary worth." He is particularly disturbed by the inequities that exist when corporations make billions while donors are expected to be altruistic.

Not surprisingly, free-market adherents are calling for legislation to remove traditional barriers to the selling of human parts. They hope that the "invisible hand" of the market will create a greater supply of human materials and at the same time straighten out the myriad of complex legal, social and ethical dilemmas that advances in medical science have brought us.

Others are deeply disturbed by the specter of a human-materials market patterned on the auto-parts industry. Along with the moral aversion to treating the body as commodity, they point out that those selling their organs, tissues, blood or children are likely to be the economically disenfranchised; the poor could become a "breeder class" for the affluent. This position was taken by the New Jersey Supreme Court in the Baby M case. In a much-quoted phrase Chief Justice Warren Wilentz stated, "There are in a civilized society some things that money cannot buy."

Critics of the market approach also argue that there is a public-policy advantage to treating such material as a gift. Thomas Murray, editor of *Medical Humanities Review*, noted: "Gifts help to create and sustain intimate personal relationships. In the face of impersonal bureaucracies, gifts to 'strangers' affirm a number of vital social values including our solidarity with others in our community and our vision of human flourishing, individual and social, that require more than the thin relationships established by markets and contracts."

A compromise may lie between these two positions. Free-market advocates are most convincing when the issue is the sale of replaceable, replenishable materials—blood, various cells and tissues. Although many would wish to maintain a society suffused with the gift ethic, this aim seems utopian once the Pandora's box of patenting and profiting on human living matter is opened. As noted by the court in the Moore case, it is particularly difficult to maintain a position that donors should remain in a gift position with their human tissues when corporations and institutions are turning those materials into billion-dollar industries.

On the other hand, the current legislative inclination to bar a free market in irreplaceable materials—such as kidneys, corneas and children—is based on sound public policy. The exploitative pressure put on those who under economic coercion might sell these unique parts of their humanity is unconscionable. Arguments that the poor should be given a choice as to whether to sell their body parts could be used just as easily to justify a return to allowing individuals to sell themselves into slavery. Moreover, the open sale of fetuses, children or organs involves a removal of traditional concepts of the reverence owed to human life. We have no way to know—and many reasons to fear—the consequences of degrading this reverence.

Legislators, courts and the public continue to grapple with the complex issues raised by the body market. Meanwhile, technology advances and profits soar. Only one outcome is certain: The issue of how far we can go in treating the body as commodity will be one of the most profound ethical questions of the '90s.