TOP BIOETHICS NEWS STORIES: MARCH – MAY 2016

BY HEATHER ZEIGER, MS, MA RESEARCH ANALYST

"Zika Virus Kills Developing Brain Cells" by Gretchen Vogel, *Science*, March 4, 2016

As fear of the Zika virus spreads nearly as quickly as the pathogen itself, two new laboratory studies offer the first solid evidence for how it could cause brain defects in babies: The virus appears to preferentially kill developing brain cells. (http://tinyurl.com/hpuu5x2)

"Zika Babies Reveal Our Society's Deep, Dangerous Prejudice against Disabilities" by Martina Shabram, *Quartz*, April 14, 2016

Much of the media coverage of the Zika virus has focused on the disabilities and deformities associated with microcephaly, and on the difficulties faced by women who are pregnant with, or have given birth to, babies with the condition. . . . But as a disability-rights scholar, what concerns me is that [*sic*] the language and imagery we use to discuss disability. Too often, the narrative surrounding microcephaly relies on familiar–and disturbing–assumptions about what kind of lives are worth living. (http:// tinyurl.com/z5smt2b)

18

Perhaps the most popular bioethics headline this past spring is about the Zika virus. Zika, a mosquito-borne virus, has been present in Brazil for several years, but recently Brazilian doctors realized a correlation between contracting the Zika virus and babies born with microcephaly. Zika has raised several bioethics questions including loosening restrictions on abortion in countries that have the highest incidence of Zika infection, making contraceptives and morning-after pills available, and questioning how research on fetal tissue has helped study the virus. Shabram suggests that our response to Zika demonstrates our prejudices against disability. **"Islamic State Using Birth Control to Keep Supply of Sex Slaves: NY Times"** by Idrees Ali and Diane Craft, *Reuters*, March 12, 2016

The Islamic State is using several forms of contraception to maintain its supply of sex slaves (http:// tinyurl.com/hrwylop)

"The Underbelly of Syria's War: A Thriving Trade in Human Organs" by Ahmad Haj Hamdo, *UPI*, May 12, 2016

The illegal trade in human organs has become widespread in Syria and neighboring countries, medical officials and victims say, with cross-border networks exploiting thousands of desperate Syrians. These networks purchase transplantable organs such as kidneys and corneas from Syrians and ship them to neighboring countries, where they disappear into the murky world of the international organ trade, they say. (http:// tinyurl.com/zfhfqgo)

"Syrian Conflict: MSF Says Deadly Air Strike Hit Aleppo Hospital" *BBC*, April 28, 2016

At least 14 patients and three doctors have been killed in an air strike on a hospital in the Syrian city of Aleppo, the charity Medecins sans Frontieres (MSF) says. . . . Local sources blamed Syrian or Russian war planes. The Syrian military has denied targeting the hospital. (http://tinyurl.com/ha88v63)

Amidst the violence and humanitarian disasters resulting from the turmoil in the Syria and Iraq, has been the emergence of several issues of bioethical relevance. The Islamic State has abducted around 5,000 Yazidi men and women. Many of these women and girls have been raped and sold as sex slaves. Poverty has caused many in Syria and Iraq to sell their organs on the black market. And, against the Geneva Conventions, hospitals run by Doctors without Borders have been the targets of attacks during the Syrian conflict.

"'Undue Burden' on Trial in SCOTUS Abortion Case" by Drew Gerber, U.S. News & World Report, March 15, 2016

In the 1973 landmark *Roe v. Wade* case, the Supreme Court gave constitutional protection to a woman's right to an abortion. But in 1992, the court in Planned Parenthood v. Casey [sic] amended that right somewhat. States could restrict abortions to protect women's health as long as those limits did not create an 'undue burden.' Now, 43 years after the landmark decision in Roe, the court must decide exactly what that phrase means. (http://tinyurl. com/hfuvrlx)

While conspicuously absent from the political debates, abortion has been in the news as state courts and the U.S. Supreme Court hear cases that challenge whether legislation that puts additional regulations on abortion are Constitutional. This past spring the U.S. Supreme Court heard a case on a Texas abortion law that would require doctors to have hospital admitting privileges and abortion clinics to be held to the same standards as ambulatory surgical centers. As this article was going to press, the Court decided against the Texas law in a 5-3 vote (http://tinyurl.com/zsbvyus).

"Opioids Are Bad Medicine for Chronic Pain, Say New Federal Guidelines" by Harriet Ryan and Soumya Karlamangla, *The Los Angeles Times*, March 15, 2016

Federal health officials speaking in unusually blunt terms Tuesday called on the American medical community to turn away from treating common ailments with highly addictive painkillers, saying the nation's prescription drug epidemic was a "doctor-driven" crisis. (http://tinyurl.com/hrdjzlx)

"US Bill Targets Babies Born Dependent on Opioids" by John Shiffman and Duff Wilson, *Reuters*, March 23, 2016.

A bill that aims to protect babies born to mothers who used heroin or other opioids during pregnancy was introduced on Wednesday [March 23] in the House as part of the government's response to a Reuters investigation. (http:// tinyurl.com/hlbdelz)

Many people believe that one of the causes of the current opiate drug epidemic is overprescribing opioids for chronic pain. Studies show that many people share their prescriptions and will stoke their addiction by obtaining more pills from multiple doctors. The Centers for Disease Control and Prevention released new guidelines calling upon doctors to find other ways to help patients deal with chronic pain. Additionally, both the U.S. House and Senate drafted bills that would protect babies born addicted to opioids. Current treatments for newborns are controversial because it involves providing them with small amounts of methadone, which is not FDA approved for infants.

"In IVF, Questions about 'Mosaic' Embryos" by Kira Peikoff, *New York Times* April 18, 2016

Now high-resolution, next-generation sequencing has sharpened the view, and researchers are finding something surprising: About 20 percent of embryos have both normal and abnormal cells, and the percentage increases with maternal age. These so-called mosaic embryos have long been known, but they have been detectable during an active IVF cycle only in the last year. At least some of these embryos seem to mature into healthy children. (http://tinyurl.com/zc3mfve)

"Abnormal Cells Not a Sure Sign of Baby Defects, Finds Academic Who Had Healthy Child at 44 Despite Risk" *The Telegraph*, March 30, 2016 Embryos with abnormalities may still develop into healthy babies, suggests a new study by a Cambridge professor who gave birth to a healthy child at the age of 44 despite a test showing a high chance he might develop birth defects. Researchers found that abnormal cells in the early embryo are not necessarily a sign that a baby will be born with a birth defect such as Down's Syndrome. (http://tinyurl.com/j32qlzq)

Genetic testing of embryos may not be as definitive as was once thought. Cambridge professor Magdalena Zernicka-Goetz gave birth to a healthy boy after CVS tests indicated that he would likely be born abnormal. Another study showed that many embryos are actually "mosaic" embryos, meaning they have combination of normal and abnormal cells. Some of these mosaic embryos may 'self-correct' and grow into healthy children, raising additional concerns that often results like these prompt parents to abort the pregnancy or discard the embryo.

"Canadian Prime Minister Seeks to Legalize Physician-Assisted Suicide" by Ian Asten, *The New York Times*, April 14, 2015.

The government of Prime Minister Justin Trudeau introduced legislation on Thursday to legalize physician-assisted suicide for Canadians with a "serious and incurable illness".... The proposed law limits physician-assisted suicides to Canadians and residents who are eligible to participate in the national health care system, preventing a surge in medical tourism among the dying from other countries. (http://tinyurl.com/z82s6gf)

"California to Permit Medically Assisted Suicide as of June 9" by Lisa Aliferis, NPR, March 10, 2016.

California Gov. Jerry Brown signed landmark legislation last October that would allow terminally ill people to request life-ending medication from their physicians.... [T]he End of Life Option Act will go into effect June 9. (http://tinyurl.com/ gop39ck) Physician-assisted suicide made headlines this spring as both Canada and California posted June 6 and June 9 as the dates that their laws allowing medically-assisted suicide go into effect. These laws come at the same time that reports from The Netherlands and Belgium show an increase in the number of people dying from physician-assisted suicide (cf. http://tinyurl.com/h24tvdj). Their reports included increases in the number of people approved for medically-assisted suicide due to mental illness.

"Genetically Engineered Pig Hearts Survive a Record-Breaking Two Years Inside Baboons" by Rachel Felton, *The Washington Post*, April 15, 2016

In 2014, researchers led by Muhammad M. Mohiuddin . . . , announced that hearts from pigs with the human thrombomodulin gene added to their genomes had survived in baboon hosts for an average of 200 days, with some pushing past a year.... Now they've beaten that record. In a study published Tuesday [April 12] in Nature Communications, Mohiuddin and his colleagues report a median survival of 298 days. One graft host survived for 945 days. (http:// tinyurl.com/hkzg9tg)

Several news items this spring speculated on using pigs to solve the shortage of organs for those patients in need of organ transplants. In this case, genetically altered pig organs were grafted into a baboon to test for immune resistance. Other research has involved making human/pig chimeras so that human organs can be grown in a pig's body and then harvested for donation. Both involve adding human genes or human stem cells to a pig embryo. While this research may solve one ethical dilemma, it raises many others.

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