

impact has newfound resonance in today's political climate.

A Crack in Creation: A Review of Jennifer Doudna's Memoir on CRISPR

by Jessica Cussins, *Biopolitical Times* Guest Contributor In *A Crack in Creation*, CRISPR gene-editing star Jennifer Doudna provides a fascinating glimpse into what it means to create one of the most consequential scientific developments of the century. But does Doudna depend too heavily on familiar discussions around choice and responsibility to make sense of CRISPR complex ethical repercussions?

UK Public Consultation on Germline Editing Draw Criticism

by Leah Lowthorp The Nuffield Council on Bioethics in the UK recently released a survey on the ethical implications of using gene editing for reproduction. But is the survey truly seeking a range of perspectives, or does it try to steer the feedback it receives in a predetermined direction?

Acceleration of the United States on-demand genetic testing industry

by Jessica Cussins, *The Pharmaceutical Journal* Although the FDA has recently approved direct-to-consumer genetic testing for a few health risks, CGS consultant Jessica Cussins notes that it still is not clear how useful this information will be for consumers.

CGS in the NEWS

The Genetic Algorithm That Revealed My Possible Babies

[citing CGS' Marcy Darnovsky]

by Rachel Lehmann-Haupt, Neo.Life

Marcy Darnovsky provides caution as GenePeeks pushes the boundaries of genetic testing by screening prospective parents for 900 recessive genetic variations for more than 1,000 diseases. "What will happen is that we'll start with eliminating cystic fibrosis and Tay-Sachs disease, and when the technology becomes available we'll start choosing traits that have nothing to do with medicine or disease."

CRISPR DNA Editing Can Cause Hundreds of Off-Target Mutations

[citing CGS' Marcy Darnovsky]

by Dave Roos, Seeker

Marcy Darnovsky from the Center for Genetics and Society — a nonprofit that advocates for the ethical and equitable use of genetic and reproductive technologies — agreed that the off-targeting study struck a "needed note of caution." She worries that because CRISPR is so much easier to use, and so















much faster and cheaper, that it "creates a temptation for everyone to pick it up and use it for everything."

The Fertility Doctor Trying to Commercialize Three-Parent Babies

[citing CGS' Marcy Darnovsky]

by Emily Mullin, MIT Technology Review

"Zhang's breakaway plans don't stop at spindle nuclear transfer. He says a future step will be to combine the technique with editing genes, so that parents can select hair or eye color, or maybe improve their children's IQ. 'Everything we do is a step toward designer babies,' Zhang says of Darwin Life. 'With nuclear transfer and gene editing together, you can really do anything you want.'"

NEWS

Assisted ReproductionGene EditingGenomicsGovernanceVarious

GENE EDITING

Fixing genes won't fix us

by Jim Kozubek, Boston Globe

Science is threatening a new era of "market-based eugenics," whereby gene editing in combination with in vitro fertilization techniques will allow us to engineer our way to a society with fewer instances of diseases like schizophrenia.

The Upside of Bad Genes

by Moises Velasquez-Manoff, New York Times

We evolved in environments that are radically different from today's, and some of our genes may work better in those environments. This complicates the idea of trying to perfect the human genome with technology. Given how much the world has changed in just the past 150 years, and how much it's likely to change again in the next 150, the question is, "What environment will we optimize our genes for?"

A Controversial Study Is Tearing the CRISPR World Apart

by Kristen V. Brown, Gizmodo

It's well-known that using CRISPR can sometimes also result in some unintended genomic changes, and scientists have long been working on ways to fine-tune it. But the researchers found that when they had used CRISPR to cure blindness in mice, it had resulted in not just a few but more than a thousand, unintended off-target effects.

<u>China sides with Emmanulle Charpentier and Jennifer Doudna in</u> <u>CRISPR patent war</u>

by Sarah Buhr, Tech Crunch

What remains unclear is how U.S. companies wishing to license the patented technology will need to deal with both the broader sweeping Charpentier and Broad patent, as well as the patent granted to the Broad Institute. That's a different story across the pond in Europe and the United Kingdom, which both granted patents to team Charpentier/Doudna.

Forget GMOs. The next big battle is over genetically 'edited' foods

by Caitlin Dewey, Washington Post

DuPont Pioneer has spent the past several months convening regular focus groups with leaders from government, agriculture and environmental organizations, Kerr-Enskat said. The goal is to learn more about the public's CRISPR concerns and use them to inform future messaging efforts.

ASSISTED REPRODUCTION

This Rogue Doctor Wants to Charge Women \$100,000 For an Illegal Fertility Treatment

by Kristen V. Brown, Gizmodo

Now Zhang is taking his so-called "three-parent baby" technique commercial, and targeting a different market altogether: the booming, multi-billion dollar fertility market. Instead of focusing on women who risk passing on mitochondrial diseases to their offspring, he hopes to use the technique as a cure for infertility.

<u>'A factory to produce babies for sale': surrogacy remains a lure for</u> <u>Cambodia's poorest despite ban</u>

by South China Morning Post

One by one, countries that had been popular surrogacy destinations like India, Nepal and Thailand have banned the trade. Cambodia did the same in November. But industry remains, albeit in the shadows.

The "Nobel Prize Sperm Bank" Was Racist. It Also Helped Change the Fertility Industry

by Kat Eschner, Smithsonian Magazine

Today, sperm banks offer significant donor details to prospective parents. The lure of choice is one of the marketing strategies of sperm banks, which are, after all, businesses. But the question of whether sperm banks are engaging in eugenics on some level has never really gone away.

My Daughter Is a Person; Her Frozen Embryo 'Possiblings' Aren't

by Lindsay King-Miller, Rewire

When anti-choice activists talk about protecting children, I wonder why they're so much more concerned with protecting hypothetical babies than the present and future needs of living kids.

GOVERNANCE

State Panel Approves Police Use Of Controversial Familial DNA

Records Searches

by Nathan Tempey, Gothamist

A State panel of scientists is considering a controversial DNA testing policy that would allow police to investigate the relatives of New Yorkers whose DNA closely matches DNA recovered from a crime scene.

FBI raids offices of lab that pays doctors to promote genetic tests

by Charles Piller, STAT

Proove Biosciences, an Irvine, California firm that purports to determine a patient's likelihood of becoming addicted to opioids, based on genetic tests and questionnaires, was raided by FBI agents and officers from the inspector general's office of the Department of Health and Human Services.

Can the Law Enforcement's DNA Database Tell Police your Medical Information?

by Francie Diep, Pacific Standard

- News TOP -

- News TOP -

A team of geneticists from universities in the United States and Canada found a way to match forensic DNA profiles with health-related DNA profiles. In other words, somebody with access to both U.S. law enforcement's DNA database and a genetic research database could, theoretically, run an analysis to find if there's anybody who pops up in both.

Science organizations renew call for independent U.S. committee on forensics

by Spencer S. Hsu, Washington Post

Led by the 120,000-member American Association for the Advancement of Science, which publishes the journal *Science*, the groups said in a June 9 letter that after years of enhanced scrutiny, "we simply do not know whether many forensic practices are reliable or valid scientifically."

GENOMICS

The dangers of mail-in genetic testing

by Daniel Munro, Maclean's

Mail-in genetic testing kits have been available for sale in Canada for nearly five years, but were not approved for sale in the United States until very recently. While the U.S. treats them as medical devices requiring pre-market approval, provinces appear to view them as non-therapeutic products which are regulated, but not in need of pre-market approval.

Baby Genome Sequencing for Sale in China

by Antonio Regelado, *MIT Technology Review*

A Boston-based DNA sequencing company is offering to decode the complete genomes of newborns in China, leading some to ask how much parents should know about their children's genes at birth.

What If (Almost) Every Gene Affects (Almost) Everything?

by Ed Young, The Atlantic

Three Stanford scientists have proposed a provocative new way of thinking about genetic variants, and how they affect people's bodies and health.

DNA testing vital to obtaining just convictions

by Jim Petro, USA Today

With nearly 800 wrongful murder convictions identified in the U.S. since 1989, I now know that we must do much more to protect innocent people from wrongful conviction – and even wrongful execution....The State should have pursued the truth, but instead, it argued the DNA was contaminated and unreliable.

In healthy patients, genome sequencing raises alarms while offering few benefits

by Sharon Begley, STAT

The key finding — that few people with "disease-causing" mutations actually had a genetic disease — therefore raises questions about whether genome sequencing in generally healthy adults can be medically justified.

VARIOUS

North Carolina court upholds denial of eugenics compensation

by Gary D. Robertson, Associated Press

Some surviving relatives of people involuntarily sterilized by the state of North Carolina decades ago can't get financial compensation from the state, an appeals court affirmed Tuesday. The state court said the victims in those cases

- News TOP -

- News TOP -

died before a legal cut-off date that determines who's qualified to receive the money.

Goat testicles in men, human organs in pigs: the past and future of xenotransplantation

by Angela Chen, *The Verge* The road to growing organs in pigs is paved with ethical questions.

Stem cells show promise – but they also have a darker side

by Jill Johnson, The Conversation

Therapies using mesenchymal stem cells are being touted as a great new hope for the treatment of serious chronic diseases such as colitis, diabetes, arthritis, cirrhosis, kidney disease, heart disease, chronic obstructive pulmonary disorder – the list goes on and on...It's clear why there is so much interest in these cells. But can they really fulfill their promise – and do they have the capacity to harm as well as help us?

