

No Patents on Life! Campaign Newsletter

June, 2017

(The complete version of this newsletter is available only in Japanese. These are some of the English language articles used in the latest edition of the Japanese newsletter.)

CROPS

GM-free EU trumps GM USA

October 2016

A New York Times report found GM crops grown in the USA & Canada since have not lifted crop yields or reduced chemical pesticide use overall.

https://www.nytimes.com/2016/10/30/business/gmo-promise-falls-short.html?hp&action=click&pgtype=Homepage&clickSource=story-heading&module=photo-spot-region®ion=top-news&WT.nav=top-news&_r=1

GM Contamination

September 2016

No commercial GM wheat is grown anywhere but a farmer in Washington state, USA, recently found Monsanto's experimental GM wheat on his land, for the third time in three years.

<http://www.reuters.com/article/us-wheat-washington-gmo-idUSKCN10920K>

Glyphosate in pregnant women

April 2017

Scientists found glyphosate residues in 90% of 69 expectant mothers in Indiana, and high levels of those residues appeared to correlate with shortened pregnancies and below-average birth weights adjusted for age.

https://thefern.org/ag_insider/researchers-find-glyphosate-pregnant-women-worry-impact-infants/

California EPA declares Roundup causes cancer

March 2017

The state of California has finalized its decision designating glyphosate, the main ingredient in the pesticide Roundup, as a known human carcinogen.

https://oehha.ca.gov/proposition-65/cmr/glyphosate-be-listed-under-proposition-65-known-state-cause-cancer#_ftn5

“EPA bureaucrats bribed by Monsanto to hide scientific evidence of glyphosate causing cancer” (according to GMO.news)

March 2017

Court documents reveal that Monsanto has been working with scientists at the EPA to conceal the true nature of glyphosate.

<http://gmo.news/2017-03-30-shocking-letter-from-dead-epa-scientist-reveals-epa-bureaucrats-being-bribed-by-monsanto-to-hide-scientific-evidence-of-glyphosate-causing-cancer.html>

Pro-GMO scientist guilty of using forgery to defame anti-GMO scientist

September 2016

Gilles-Éric Séralini, a French molecular biologist critical of GMOs, is often criticized by pro-GMO scientists. In September 2016 a Paris court found Marc Fellous, president of the French Association for Plant Biotechnology, a pro-GM lobby group, guilty of defaming Professor Séralini.

<http://www.gmwatch.org/news/archive/2016-articles/17236-seralini-wins-again-in-court-against-his-attackers>

Monsanto Tribunal

October 2016

The Monsanto Tribunal, held in October 2016 in The Hague, is an international civil society initiative to hold Monsanto accountable for human rights violations, for crimes against humanity, and for ecocide. Eminent judges will deliver a legal opinion following procedures of the International Court of Justice on April 18th 2017.

<http://www.monsanto-tribunal.org/>

TECHNOLOGY

Call to block new 'genetic extinction' GMOs

December 2016

International conservation and environmental leaders have called on governments to establish a moratorium on 'gene drives'. Gene drives are designed to force a particular genetically engineered trait to spread through an entire wild population - potentially changing entire species or even causing deliberate extinctions.

http://www.theecologist.org/News/news_round_up/2988422/biodiversity_convention_call_to_block_new_genetic_extinction_gmos.html

CRISPR: What could possibly go wrong?

June 2016

The most common genome editing technique, [Crispr-cas9](#), works like a pair of molecular scissors to remove a specific strand of DNA inside a cell and then replace it with a new piece of genetic material. The US has approved the use of CRISPR-Cas9 in people. There are unresolved questions: 'off-target effects': genes that scientists don't intend to change inadvertently get deleted or altered; random DNA rushing into the gap created when CRISPR's DNA-cutting enzyme snips the genome; the use of a virus to infiltrate cells runs the risk that virus-infected cells will keep cranking out the DNA-snipping Cas9, maybe for 20 years.

<https://www.statnews.com/2016/06/23/crispr-humans-penn-clinical-trial/>

CRISPR Gene Editing Can Cause Hundreds of Unintended Mutations

May 2017

A new study has found that the gene-editing technology can introduce hundreds of unintended mutations into the genome. The researchers determined that CRISPR had successfully corrected a gene that causes blindness, but found that the genomes of two independent gene therapy recipients (mice) had sustained more than 1,500 single-nucleotide mutations and more than 100 larger deletions and insertions.

<http://newsroom.cumc.columbia.edu/blog/2017/05/30/crispr-gene-editing-can-cause-hundreds-of-unintended-mutations/>

Home 'gene editing' kits pose risk

September 2016

The simplicity and low cost of tools to edit the genetic code means amateurs with some skill can now perform their own experiments, posing a potential risk from the release of GM bugs.

<https://www.theguardian.com/science/2016/sep/30/experts-warn-home-gene-editing-kits-pose-risk-to-society>

Synthetic genome nearly complete

March 2017

Scientists are close to completing an entire synthetic genome for baker's yeast, paving the way for a realm of new organisms designed by the human hand. While genetic modification alters only small numbers of genes at a time, the new approach allows scientists to rewrite entire genomes. The technology is poised to deliver bespoke microbes, plants and animals too. These would be created to fulfill specific human needs, with genomes that make them produce drugs and vaccines, convert waste into energy, and even grow organs suitable for human transplant operations. One researcher said, "We can build superpowers – features you don't see in nature – into the design," he said. "It's the ultimate fast lane for evolution."

Many products on the market already contain synthetic biology ingredients.

<https://www.theguardian.com/science/2017/mar/09/synthetic-yeast-genome-nearly-complete-paving-way-for-bespoke-organisms>

<http://www.etcgroup.org/content/synthetic-biology-biodiversity-farmers>

<http://www.etcgroup.org/content/synthetic-biology-and-cbd>

GM Mosquitoes Could Increase Numbers of Different Disease-Carrying Mosquitoes

September 2016

Genetically engineered mosquito company Oxitec has admitted that reducing one mosquito species may increase the numbers of a second disease-carrying species. The FDA recently approved trial releases of the GE mosquitoes in Florida.

<http://www.icta.org/>

HUMANS

Gene therapy success

March 2017

In a world first, sickle cell disease has been successfully treated by gene therapy in Paris.

https://international.la-croix.com/news/gene-therapy-offers-new-hope-for-healing-sickle-cell-disease/4781?utm_source=Newsletter&utm_medium=e-mail&utm_content=03-03-2017&utm_campaign=newsletter_cr_x_lci&PMID=ca4ce0563e46285947a35389589f090c

Gene therapy helps teens with rare genetic disorder

November 2015

Gene therapy has dramatically improved the conditions of two bedridden teens suffering from a rare disease, Jichi Medical University said Tuesday. Patients with the disease suffer from repeated seizures and become bedridden before they can hold their heads up. There has not been an effective treatment so far.

<http://www.japantimes.co.jp/news/2015/11/11/national/science-health/gene-therapy-helps-teens-rare-genetic-disorder/>

First human-pig embryos

January 2017

Scientists have grown the first human-pig hybrid embryos and taken them a third of the way through pregnancy inside a sow. Geneticists in California hope this research will pave the way for growing fully-functional human transplant organs inside hybrid animals.

<http://www.theage.com.au/technology/sci-tech/first-humanpig-embryos-open-route-to-growing-transplant-organs-in-chimeras-20170126-gtz621.html>

New fertility procedure may lead to 'embryo farming'

January 2017

A new lab procedure – in vitro gametogenesis (IVG) – could allow fertility clinics to make sperm and eggs from people's skin. IVG could offer fresh hope for infertile

people. But if the procedure ever became simple and inexpensive, clinics could manufacture almost limitless supplies of sperm, eggs and embryos. “IVG might raise the specter of ‘embryo farming’ on a scale currently unimagined.”

<https://www.theguardian.com/science/2017/jan/11/new-fertility-procedure-may-lead-to-embryo-farming-warn-researchers-in-vitro-gametogenesis>

US scientists make baby using DNA from 3 people

March 2017

US-based doctors created the world's first baby using DNA from 3 people. Scientists remove the nucleus DNA from the egg of a prospective mother and insert it into a donor egg from which the donor DNA has been removed. [See previous newsletter]

<http://mainichi.jp/english/articles/20170317/p2g/00m/0fe/031000c#csidx21b836a211fee9af4155b077f65f1b>

<https://www.newscientist.com/article/2107219-exclusive-worlds-first-baby-born-with-new-3-parent-technique/>

Study shows 1st time organ made in different animal useful in treatment

January 2017

TOKYO (Kyodo) -- A team led by University of Tokyo researchers has successfully created a healthy pancreas from mouse stem cells inside the body of a rat, in first such accomplishment between different species, a study published in the British science journal Nature showed Wednesday. In Japan, researchers are currently allowed to conduct studies to inject human iPS cells into animal fertilized eggs. But animal production by using the eggs is not permitted under laws and guidelines.

<http://mainichi.jp/english/articles/20170126/p2g/00m/0dm/078000c#csidx2ddbba91209b72b6cf437fa96f7dfa>

<http://www.japantimes.co.jp/news/2017/01/26/national/science-health/treatment-breakthrough-today-led-team-creates-mouse-pancreas-rat-transplants-diabetic-mouse/>

PATENTS

Patient wins high court challenge against cancer gene patent

October 2015

An Australian cancer patient has won her high court challenge against Myriad Genetics which has a patent over the BRCA1 gene, which is linked to an increased risk of hereditary breast and ovarian cancers. The high court found that an isolated nucleic acid was not a 'patentable invention'. [See previous newsletter.]

<http://www.theguardian.com/society/2015/oct/07/patient-wins-high-court-challenge-against-companys-cancer-gene-patent>

Makers of Humira and Enbrel Using New Patents to Delay Generic Versions

July 2016

The companies behind best-selling drugs Humira and Enbrel, used to treat rheumatoid arthritis, psoriasis and other autoimmune diseases, and which cost around \$50,000 a year, are deploying new patents to prevent patients and insurers from getting two essentially generic versions of the drugs for less money.

https://www.nytimes.com/2016/07/16/business/makers-of-humira-and-enbrel-using-new-drug-patents-to-delay-generic-versions.html?_r=0

Eli Lilly Raised US Prices Of Diabetes Drug 700%

November 2016

Eli Lilly, a US-based company, has raised some US prices 700% by marketing so-called improved versions. A Washington Post analysis of the price increases has stirred up outrage. The newspaper noted that Humalog, an Eli Lilly brand of insulin that was sold for \$21 per bottle in the US 20 years ago, is now priced at \$255, which represents a 700% markup. "(M)ost of these drugs are being developed to preserve patent protection," David Nathan, a Harvard Medical School professor, told the newspaper. "The truth is they are marginally different, and the clinical benefits of them over the older drugs have been zero."

<http://www.corpwatch.org/article.php?id=16097>

EU Commission says plants and animals derived from conventional breeding should be non-patentable

November 2016

The EU Commission has taken the view that plants and animals that are obtained by means of “essentially biological” breeding are non-patentable. This statement is in strong contradiction to the current practice of the European Patent Office, which has already granted more than 100 patents on conventional breeding, e.g. on tomatoes and broccoli.

<http://no-patents-on-seeds.org/en/information/news/eu-commission-says-plants-and-animals-derived-conventional-breeding-should-be-regar>

RCEP Asian Trade Pact

March 2017

The draft intellectual property chapter of the Regional Comprehensive Economic Partnership (RCEP), which includes Japan, goes beyond the TPP. Threats to access to medicines include 5 years of data exclusivity and a 5 years extension of the terms of patents. Data exclusivity grants a market monopoly status to medicines, even when patents no longer apply or exist. This gives companies a new way to keep prices high for longer periods of time and further delays generic competition. Generic producers will have to repeat clinical trials to generate a new set of safety and efficacy data.

<https://www.ip-watch.org/2017/03/31/ngos-detail-changes-public-health-rcep-asian-trade-pact/>

Traditional Knowledge, Genetic Resources and WIPO

August 2016

WIPO-IGC (World Intellectual Property Organization, Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore) negotiations have come to a grinding halt as some countries do not want an international legally binding treaty on this subject matter. As long as there are no international obligations for patent applicants to disclose the origin of the genetic resources or traditional knowledge they use, biopiracy will endure.

<https://www.iucn.org/news/commission-environmental-economic-and-social-policy/201608/traditional-knowledge-genetic-resources-and-wipo>

<https://www.ip-watch.org/2017/03/29/developing-countries-weigh-restarting-talks-trips-amendment-biological-resources/> (subscriber only content)

DEVELOPING COUNTRIES

Peasants' Collective for Food Justice Anti-GMO Forum

September 2015

FAHAMU (Kenya) was one of the organizers of the Peasants' Collective for Food Justice Anti-GMOs Forum.

<http://www.fahamu.org/resources/Anti-GMOsWorkshop.pdf>

Burkina Faso settles dispute with Monsanto over GM cotton

March 2017

Burkina Faso's cotton sector has settled a dispute with Monsanto over what it said were revenue losses due to damaged quality caused by the introduction of GM cotton.

<http://www.reuters.com/article/us-burkina-monsanto-idUSKBN16F1N3>

Monsanto in retreat

August 2016

Monsanto abandoned the construction of one of the biggest factories in the world for GM seed that was to be built in Argentina. The reason for their exit is the persistent popular resistance from local people who have blocked the factory since 2013.

<http://www.etcgroup.org/content/monsanto-retreat-movement-grassroots>

JAPAN

Vegetable oil with unapproved food additives on the market

October, 2016

MHLW announced that an oil produced from raw vegetable materials by Cargill Canada and imported and sold in Japan by Cargill Japan and Mitsubishi Corporation, used illegal GM food additives in the manufacturing process.

<http://www5d.biglobe.ne.jp/~cbic/english/2016/journal1610.html>

Hokkaido pharmaceutical factory violates Cartagena Act

July 2016

Baifa Corporation, a pharmaceutical manufacturer located in Hokkaido, violated the Cartagena Act by inappropriately disposing of GM microorganisms that were allowed to leak into the environment.

<http://www5d.biglobe.ne.jp/~cbic/english/2016/journal1607.html>

Embryo-screening project may reduce IVF miscarriages

February 2017

The Japan Society of Obstetrics and Gynecology has announced the launch of clinical research aimed at preventing miscarriages by genetically screening eggs that are fertilized in vitro before being implanted in the womb. The research is raising ethical questions because PGS detects not only chromosomal abnormalities that can complicate pregnancy and delivery, but also conditions that are not life-threatening to the mother, such as Down's syndrome.

<http://www.japantimes.co.jp/news/2017/02/16/national/science-health/embryo-screening-project-may-reduce-ivf-miscarriages/>

'Genome Cohort Studies' Begin in Earnest

January 2016

Tohoku Medical Megabank is gathering biological cell samples from people affected by the 2011 disaster in Miyagi and Iwate Prefectures, with the aim of developing novel medicines and treatment methods and health foods. All the funds for this study are provided from the earthquake disaster recovery budget. Under the My Number system, the personal number will be linked with medical data. This could lead to the genetic management of human beings.

<http://www5d.biglobe.ne.jp/~cbic/english/2016/journal1601.html>

Injecting human iPS cells into fertilized animal eggs

January 2017

In Japan, researchers are currently allowed to conduct studies to inject human iPS cells into animal fertilized eggs. But animal production by using the eggs is not permitted under laws and guidelines.

<http://mainichi.jp/english/articles/20170126/p2g/00m/0dm/078000c#csidx2ddbba9120>

[9b72b6cf437fa96f7dfa](https://www.sott.net/article/331553-World-Food-Day-letter-from-Pope-Francis-slams-biotech-industry-GMOs)

CATHOLIC

Pope for GM-free

October 2016

Pope Francis made his strongest attack yet on genetically modified plants and animals (GMOs) and the Biotech Industry, in a letter to the Director General of the Food and Agriculture Organization of the United Nations (FAO) on World Food Day.

<https://www.sott.net/article/331553-World-Food-Day-letter-from-Pope-Francis-slams-biotech-industry-GMOs>

New edition of book on Life by Japan Catholic Bishops' Conference

May 2017

The Japanese bishops have published an updated version of their 2001 message expressing their thoughts regarding 'Life'. In their new message the bishops say, "in giving priority to economic efficiency and social position, (Japanese) society is losing sight of human connections and mutual support." An English-language translation is in preparation, and will probably, like the 2001 message, be available on the Catholic Bishops' Conference of Japan website.

<http://www.ucanindia.in/news/japanese-bishops-revive-leadership-tradition/34782/daily>

Seoul Archdiocese denounces embryo research

July 2016

A committee from Seoul Archdiocese has condemned an approval given to scientists to conduct research on embryo cells because it destroys human life. The approval allows researchers from Cha Medical University to clone somatic embryos and use 600 egg cells.

<http://www.ucanews.com/news/seoul-archdiocese-denounces-embryo-research/76522>