



IPU Regional Seminar on Engaging Parliaments of the Pacific Region in the implementation of SCR 1540

Regional Cooperation and awareness-raising to promote the Biological Weapons Convention

19 September 2019 | Wellington, New Zealand

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**Why is awareness-raising
important for...**
**disarmament | international
weapon regimes | the
Biological Weapons
Convention?**



The world is overarmed and peace is underfunded

OpEd by United Nations Secretary-General Ban Ki-Moon
27 August 2012 | [Eurasia Review](#)



For More Information on Military Expenditures
[The Stockholm International Peace Research Institute \(SIPRI\)](#)
[The United Nations Report on Military Spending](#)
[Disarmament - A Basic Guide](#) (see chapter 2 on Global Military Expenditures)



How is this relevant to the Biological Weapons Convention?





Infectious diseases DO NOT respect borders (and do not require passports)

INFECTIOUS DISEASES AN OVERVIEW

What are infectious diseases?

disease terms

caused by an agent



viruses



bacteria



parasites



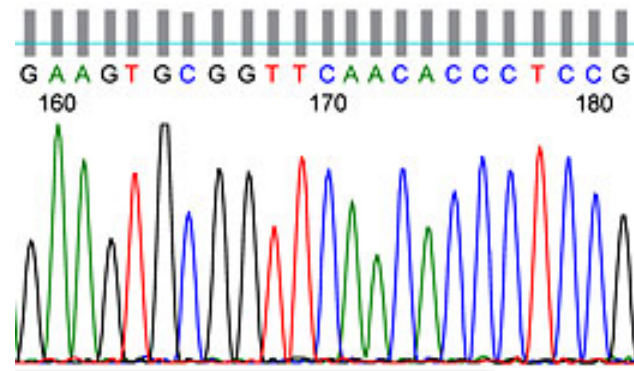
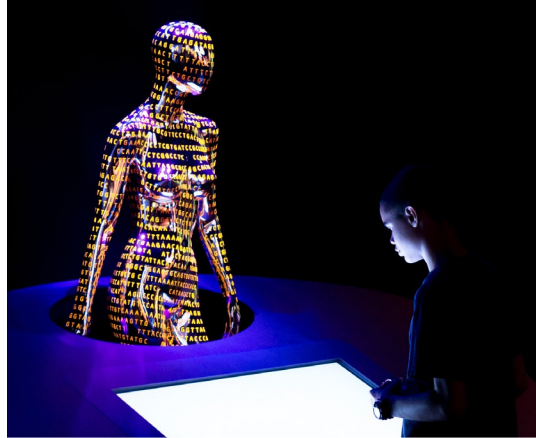
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**New technologies and
science developments relate
to the Biological Weapons
Convention and they can lead
to both: positive use and
potential misuse**

For example... DNA

What is
DNA?



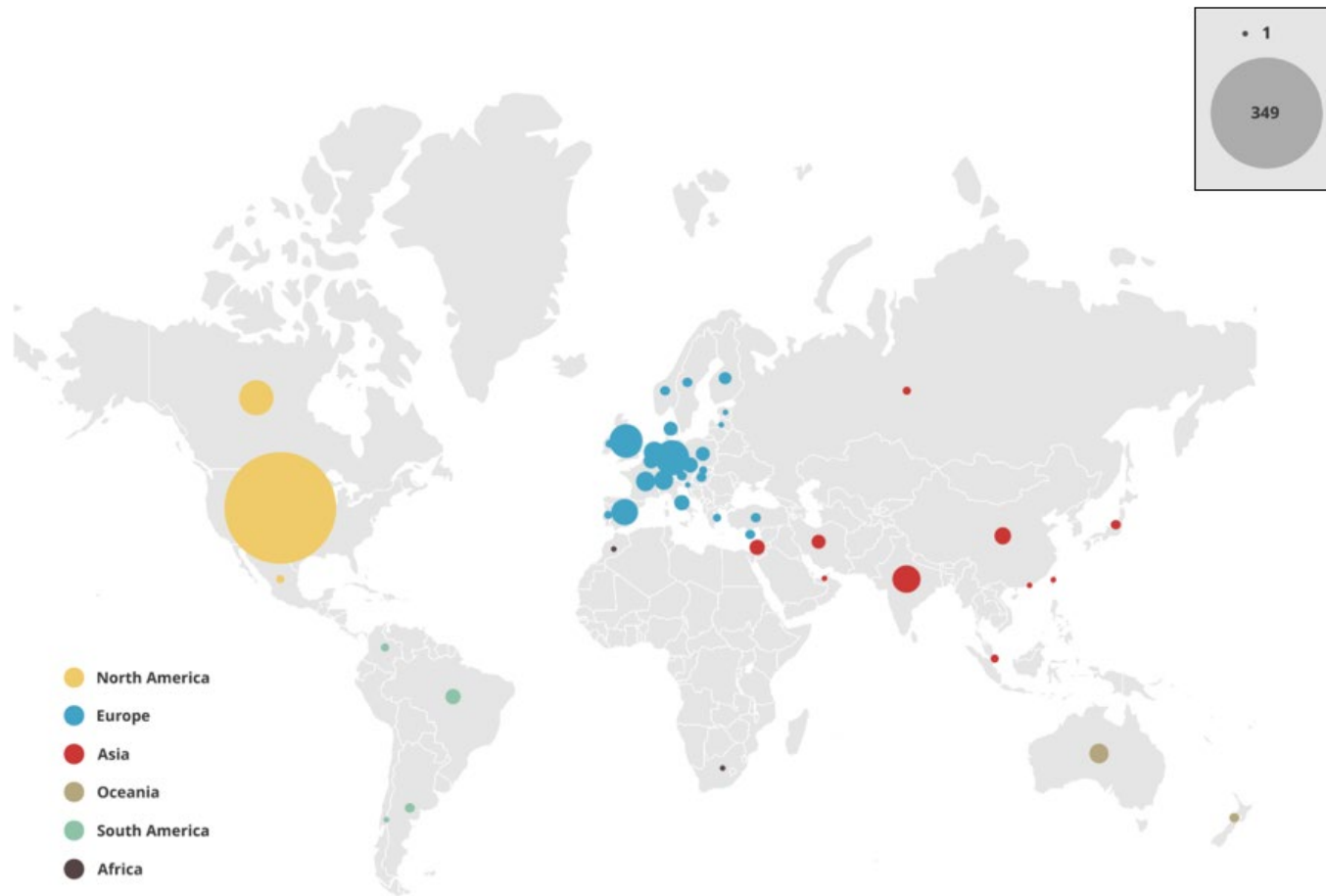
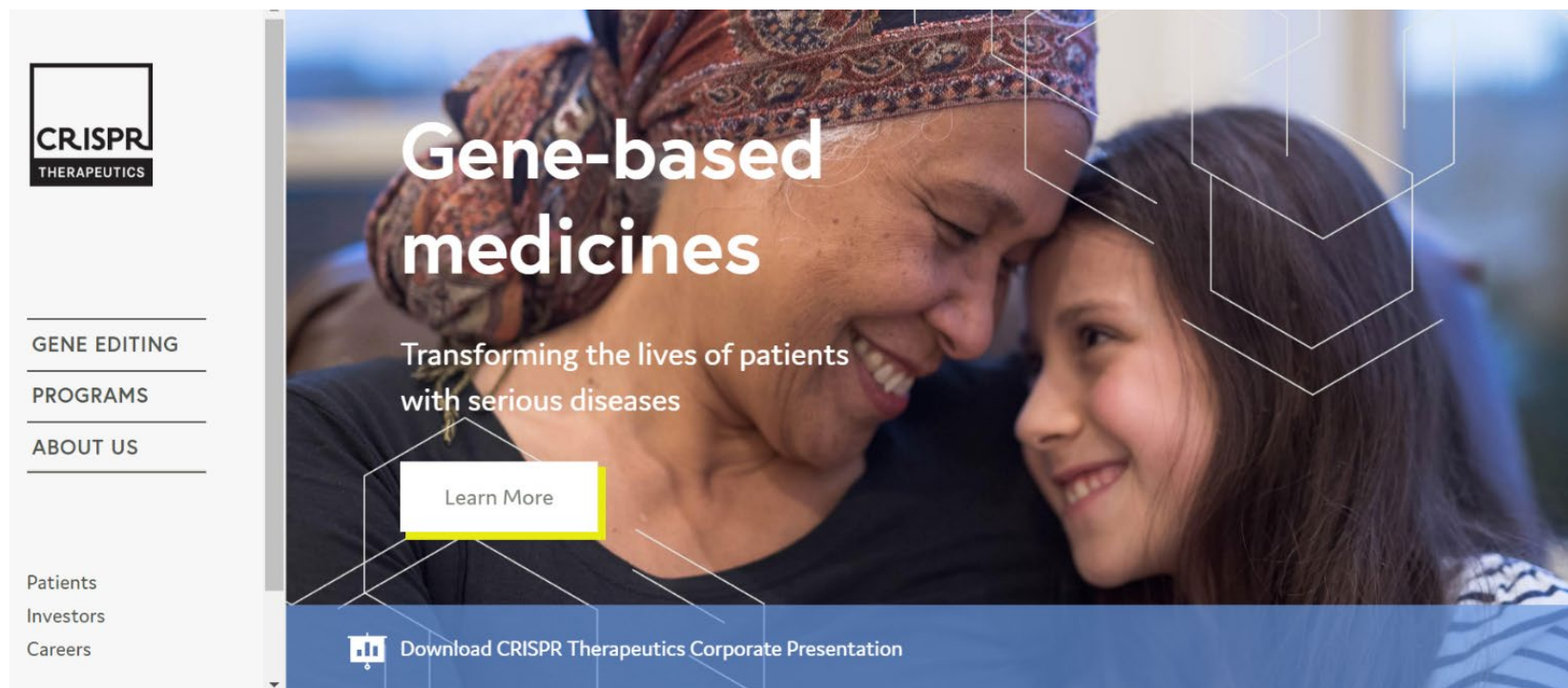


Figure 1: World map of genomic companies and research institutes (year 2018).

- By 2022, the genomics business is expected to be worth: **24 billion USD**
Health and environmental research have become main targets
New targets: **Start ups, small companies and the general public.**
Why? Low prices for DNA sequencing: **technology and instruments**

1. Companies that offer Gene Therapy (editing)

The image shows a screenshot of the CRISPR Therapeutics website. On the left is a navigation menu with the CRISPR THERAPEUTICS logo at the top, followed by links for GENE EDITING, PROGRAMS, and ABOUT US. Below these are links for Patients, Investors, and Careers. The main banner features a photograph of a smiling woman and a young girl. Overlaid on the photo is the text 'Gene-based medicines' in large white font, followed by 'Transforming the lives of patients with serious diseases' in a smaller white font. A yellow 'Learn More' button is positioned below the text. At the bottom of the banner, there is a blue bar with a download icon and the text 'Download CRISPR Therapeutics Corporate Presentation'.

CRISPR THERAPEUTICS

GENE EDITING
PROGRAMS
ABOUT US

Patients
Investors
Careers

Gene-based medicines

Transforming the lives of patients with serious diseases

Learn More

Download CRISPR Therapeutics Corporate Presentation

CRISPR Therapeutics

www.crisprtx.com/our-programs/our-therapeutic-approach.php ✓

We are focused on the treatment of somatic (non-germline) cells, analogous to the approach taken by more traditional and established gene therapy methods.

1. (not only) companies that offer Gene Therapy (editing)



The CRISPR-baby scandal: what's next for human gene-editing

As concerns surge after a bombshell revelation, here are four questions about this fast-moving field.

David Cyranoski



He Jiankui presented a slide at a Hong Kong, China, genome-editing summit that showed DNA sequences from the edited CCR5 genes in the twin girls. NATIONAL ACADEMIES/FLICKR (CC BY-NC-SA 2.0)



NEWS • 10 JUNE 2019

Russian biologist plans more CRISPR-edited babies

The proposal follows a Chinese scientist who claimed to have created twins from edited embryos last year.

David Cyranoski



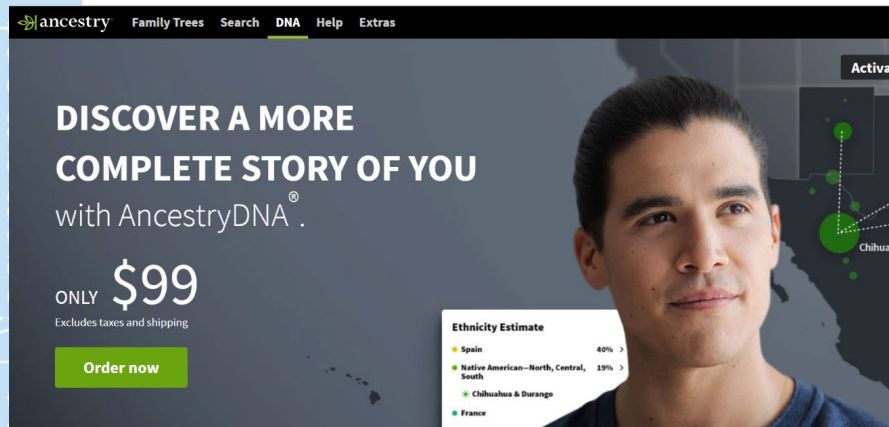
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RELATED ARTICLES

The CRISPR-baby scandal: what's next for human gene-editing



2. Companies that offer direct consumer genetic testing



ancestry Family Trees Search **DNA** Help Extras

Discover a more COMPLETE STORY OF YOU with AncestryDNA®.

ONLY \$99
Excludes taxes and shipping

Order now

Ethnicity Estimate

- Spain 40% >
- Native American—North, Central, South 19% >
- Chihuahuas & Durango
- France



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EN ~

Register Your Kit

Our Test

Knowing your own genetic risk can help you **choose a lifestyle** that is better for your health. The Futura Genetics test is a **non-invasive** DNA test designed to assess your risk of developing each of the **28 most common conditions** worldwide.

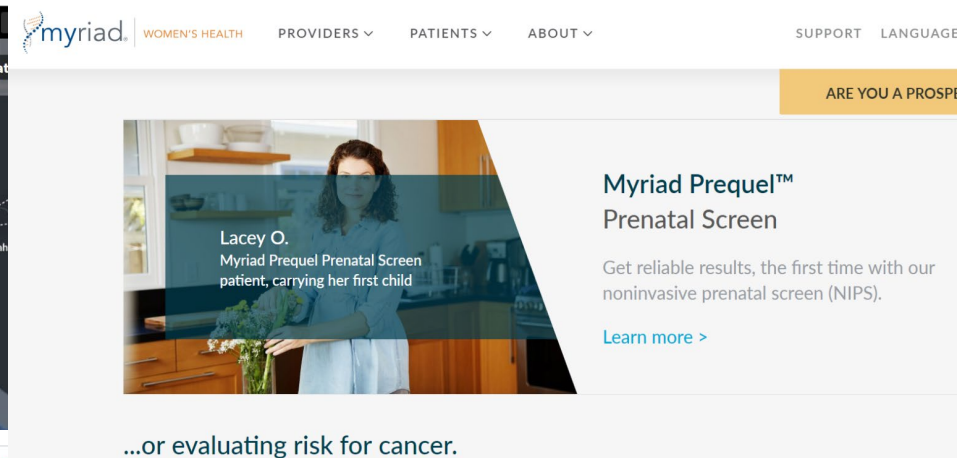
Learn how your DNA affects you



See the list of all conditions checked



See how the report looks



myriad WOMEN'S HEALTH PROVIDERS PATIENTS ABOUT SUPPORT LANGUAGE

ARE YOU A PROSP?

Lacey O.
Myriad Prequel Prenatal Screen patient, carrying her first child

Myriad Prequel™ Prenatal Screen

Get reliable results, the first time with our noninvasive prenatal screen (NIPS).

Learn more >

...or evaluating risk for cancer.

Change the way you look at nutrition and fitness

Buy Pathway Fit® | \$299 Learn More



Perfect your skincare routine from the inside out

Buy SkinFit™ | \$199 Learn More



3. Companies that sell DO-It-Yourself Biology



At Amino Labs, our goal is to make teaching genetic engineering accessible, fun and affordable.





4. Companies that buy/sell genetic data

Forbes
Billionaires Innovation Leadership Money Consumer Industry Life

130,482 views | Jan 6, 2015, 09:58am

Surprise! With \$60 Million Genentech Deal, 23andMe Has A Business Plan

Matthew Herper Forbes Staff
Pharma & Healthcare
I covered science and medicine, and believe this is biology's century.

IRRED

23andMe's Pharma Deals Have Been the Plan All Along

MEGAN MOLTENI | SCIENCE 08.03.18 03:28 PM

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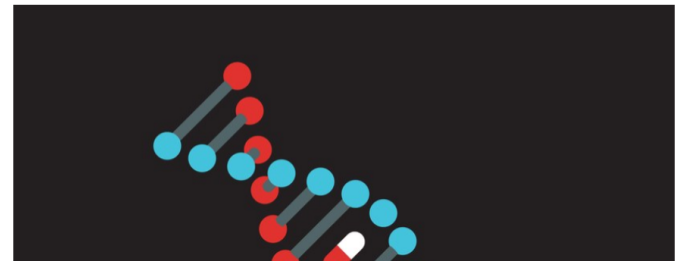
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23ANDME'S PHARMA DEALS HAVE BEEN THE PLAN ALL ALONG



5. Companies doing Synthetic Biology

- ❑ Synthetic biology applies **engineering, design, and computer science** principles to biology, usually at the DNA level.
- ❑ In 2018, 98 companies raised **3.8 billion USD**. Governments invested 50 million in them.

synthorx



A path to better medicines

With our novel DNA base pair, we are designing and building protein therapeutics to create an entirely new generation of tailored medicines to improve how we treat disease.

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WORK WITH US

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CREATING A NEW HORIZON

Through transformational plant breeding technology, we are creating a new horizon in agriculture that is more predictive, efficient, affordable, inclusive, and respectful of the environment.

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[CONTACT US TODAY](#)



UNODA
UNITED NATIONS OFFICE FOR
DISARMAMENT AFFAIRS

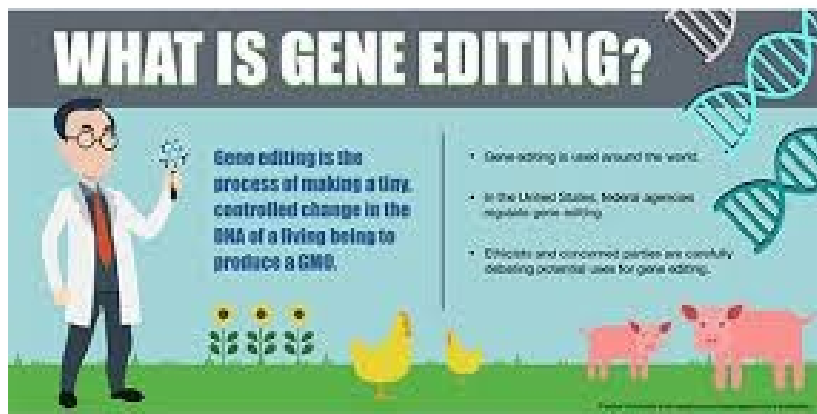


**Do you think that any of
these technologies can be
used as a channel to create
a bioweapon, even in
states with no intent to do
so?**



Main Takeaways

Advances in science and technology have moved at an unprecedented pace in the last decade. Developments that were unthinkable just years ago **[such as gene editing and biotechnology advances]** are currently underway and could have a very significant impact on the BWC and the global community





How is this relevant to most United Nations Member States?





Disarmament and the Sustainable Development Goals

3 GOOD HEALTH
AND WELL-BEING



4 QUALITY
EDUCATION



5 GENDER
EQUALITY



8 DECENT WORK AND
ECONOMIC GROWTH



11 SUSTAINABLE CITIES
AND COMMUNITIES



16 PEACE, JUSTICE
AND STRONG
INSTITUTIONS





How does the UN raise awareness and promote regional cooperation on the BWC?



EU Council Decision 2019/97

-At a glance-

1. Promoting universal adherence to the BWC

2. Developing national capacity to implement BWC

3. Fostering biosecurity networks in the Global South

4. Supporting the Ninth BWC Review Conference

5. Preparedness to prevent and respond to a biothreat

6. Developing awareness-raising and engagement tools



Universalisation

Objective

Promoting universal adherence to the BWC by encouraging States not party to better understand the benefits of joining the BWC

Activities

Follow-up outreach will continue to support universalization activities conducted under EU Council Decision 2016/51

- ✓ Four in-country universalization activities over the course of 2020-2021 (for the Pacific, Africa and Haiti)
- ✓ Two regional workshops for BWC States not party (for the Pacific and Africa)



Regional Universalisation Workshop for the Pacific

Nadi, Fiji, 27-28 July 2017





Universalisation Workshop for IGAD

Djibouti, Djibouti, 3-4 October 2018





AU-UNODA Universalisation Workshop

Addis Ababa, Ethiopia, 11-12 December 2018





Science and Technology Workshops on the Biological Weapons Convention 2017-2018





The Art of Multilateral Diplomacy

- **What the UN/diplomats/experts say**



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Dennis Amato | Dreamstime.com



The Art of Multilateral Diplomacy

- What decision-makers/officials hear





Building the bridge: communicating international treaties for decision-making





Main conclusions

**Continued education and outreach =
imperative**

[including awareness-raising at the community level
and in local languages on topics such as dual-use
research, biosafety and biosecurity]



Main conclusions

**South-South cooperation is
key = more transferable +
relatable experiences**



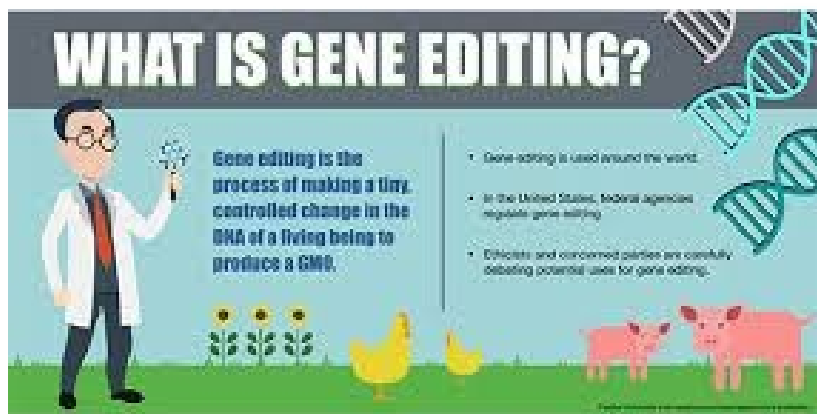
Main conclusions

Preparedness is the best and most effective way to prevent biohazards, to handle the outbreak of infectious diseases, and the emergence of epidemics



Key Takeaway

Biosecurity is a shared [collective] responsibility: at the international, regional and national level!





For more information...

www.unog.ch/bwc

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