



## Convention on Biological Diversity

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AD HOC TECHNICAL EXPERT GROUP ON  
SYNTHETIC BIOLOGY  
Montreal, Canada, 4-7 June 2019

### LIST OF REFERENCES ON SYNTHETIC BIOLOGY

#### I. INTRODUCTION

1. In decision [14/19](#), the Conference of the Parties decided to extend the Ad Hoc Technical Expert Group (AHTEG) on synthetic biology with renewed membership, taking into account, inter alia, the work on risk assessment under the Cartagena Protocol, to work in accordance with the terms of reference annexed to that decision. In the same decision, the Conference of the Parties requested the Executive secretary to facilitate the work of the AHTEG by, among other things, collecting and synthesizing relevant information.
2. Based on the above, the Secretariat has compiled a list of references from various sources with the aim to support the AHTEG deliberations by providing background information that may be relevant for discussion on the various agenda items.
3. The present compilation of references contains references submitted through the submissions on synthetic biology (section II), references shared during the Open-Ended Online Forum on Synthetic Biology (section III), and additional references for the AHTEG on Synthetic Biology (section IV).
4. It is worth noting that due to the cross-cutting nature of some of the topics and references here provided, they may fit in more than one of the categories provided below, and therefore, AHTEG members are requested to consider this as a guidance and to use their own judgement towards the use and analysis of the references contained in this document.
5. The present document contains only peer-reviewed articles, opinion documents and perspectives.

#### II. REFERENCES FROM SUBMISSIONS ON SYNTHETIC BIOLOGY

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### III. REFERENCES FROM OPEN-ENDED ONLINE FORUM ON SYNTHETIC BIOLOGY

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<https://crisprcongress.conferenceseries.com/events-list/crispr-technologies-beyond-genome-editing-and-gene-regulation>
- Fifth Annual Genome Editing Conference <https://www.oxfordglobal.co.uk/genomeediting-congress/>
- Sixth International Mammalian Synthetic Biology Workshop <http://mammalian-synbio.org/2019>
- Global Biofoundry Meeting <http://www.synbicate.com/news-events/2018/jun/25/global-biofoundry-meeting-london-june-2018/>
- iGEM 2018 [http://2018.igem.org/Main\\_Page](http://2018.igem.org/Main_Page)
- Metabolic Engineering 12 <https://www.aidc.org/sbe/conferences/metabolic-engineering-conference/2018>
- OECD Conference on Genome Editing: Applications in Agriculture Synbiobeta 2019 <http://www.oecd.org/environment/genome-editing-agriculture/>
- Second International Conference on Plant Genome Editing & Genome Engineering <http://viscea.org/plant-genome-editing-genome-engineering-ii-july-5-6-2019/>
- Synbiobeta 2019 <https://2019.synbiobeta.com/>
- Synthetic Biology: Engineering, Evolution & Design (SEED) <http://synbioconference.org/2019>
- 3<sup>rd</sup> International Conference on CRISPR Technologies <https://www.showsbee.com/fairs/CRISPR-Technologies-Conference.html>

### Websites

- BMC Molecular Biology <https://bmcmolbiol.biomedcentral.com/articles>
- Build-a-cell <http://buildacell.io/>
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- Synthetic Biology <https://academic.oup.com/synbio>
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## Topic 2: Recommend options for carrying out the regular horizon scanning, monitoring and assessing of developments referred to in para 3 of decision 14/19

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## Topic 3: Review of the current state of knowledge

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-Target Malaria [www.targetmalaria.org](http://www.targetmalaria.org)

## Topic 5: Consider whether any living organism developed thus far through new developments in synthetic biology fall outside the definition of living modified organisms as per the Cartagena Protocol

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### Websites

-Australian Academy of Science <https://www.science.org.au>

-FAO IPPC Training material on pest risk analysis based on IPPC standards <https://www.ippc.int/en/core-activities/capacity-development/training-material-pest-risk-analysis-based-ippc-standards/>

-OECD Safety of novel foods and feeds and on the harmonisation of regulatory oversight in biotechnology <http://www.oecd.org/chemicalsafety/biotrack/oecdandriskssafetyassessmentinmodernbiotechnology.htm>

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#### Website

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-Stanford University HIV Drug Resistance Database <https://hivdb.stanford.edu/>

-University of Maryland Antibiotic Resistance <https://arbd.cbcb.umd.edu/>

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## Gene Drives

### Applications for population control

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