

Annex

**TEMPLATE FOR COMMENTS ON THE REPORT OF THE AD HOC TECHNICAL
EXPERT GROUP ON SYNTHETIC BIOLOGY**

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| Contact information: | | |
| Surname: | | |
| Given Name: | | |
| Government | ARGENTINA based on comments provided by Alejandro Daniel NADRA and Ignacio Enrique SANCHEZ (joint comments), Sergio Feingold. Martín LEMA and Cecilia LLABRES | |
| (if applicable): | | |
| Organization: | CONICET and Universidad de Buenos Aires – Instituto Nacional de Tecnología Agropecuaria (Programa Nacional de Biotecnología) – Dirección de Biotecnología (Ministerio de Agroindustria) | |
| E-mail: | mle@mrecic.gov.ar, odo@mrecic.gov.ar, digma@mrecic.gov.ar, anadra@qi.fcen.uba.ar, isanchez@qb.fcen.uba.ar, feingold.sergio@inta.gob.ar, mlema@magyp.gob.ar; cllabr@magyp.gob.ar | |
| Title of document reviewed: | REPORT OF THE AD HOC TECHNICAL EXPERT GROUP ON SYNTHETIC BIOLOGY MONTREAL, CANADA, 5-8 DECEMBER 2017 | |
| Comments on the draft documentation for SBSTTA-21: | | |
| Page # | Para # | Comment |
| 1 | 1 | In Argentina’s opinion, recent technological developments within the field of synthetic biology remain within the realm of biotechnology. Synthetic biology may lead to a faster rate of engineering, but the final product remains essentially the same: we think that synthetic biology-derived organisms are not “similar to living modified organisms (LMO)”, but simply “living modified organisms (LMO)”. |

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| 4 & 5 | 3.2 | <p>Argentina points out that the use of the "precautionary approach" should not be considered as the guiding principle of the adoption of policies. It should always be applied respecting multilateral commitments and avoiding being a limitation or brake on the development of new technologies and innovations.</p> <p>While CBD recognizes this approach, it entails difficulties when it is applied to an incipient technology, without sufficient information describing its function and scope. There is a risk that scientific uncertainty is the element that becomes the basis of any regulation. In this sense, it is fundamental to base in science any decision that is taken in regulatory matters.</p> <p>If the application of the “precautionary approach” is based on the possibility that there is the slightest theoretical possibility of damage in any technology, it could block not only the development of said technology, but also fundamentally the studies and analyzes necessary to verify the alleged damages of that technology.</p> <p>Speculative and premature works could install incorrect and non-convenient forecasts for countries like Argentina, which are early adopters of new technologies, when synthetic biology becomes a concrete possibility.</p> |
| 5 | 29 | Regarding cell-free systems containing biological macromolecules (DNA, RNA, proteins), we believe they have the potential to interact in non-trivial ways with living cells. The proposed interaction may resemble to some degree virus-host interactions, where the cell-free system takes the place of the virus. We believe this possibility should be mentioned in the document explicitly, similar to what reads now on the future development of protocells. |
| 6 | 33 | This seems to be self-contradictory “LMO indistinguishable from naturally occurring or conventional bred” should not be considered LMO because this position could condition developments in gene editing. |
| 6 | 34 | In fact, it will be necessary the will of the "developer" of the synthetic organism, so that its product is detectable. Synthetic organisms can go undetected, if the will and cooperation of those who create them do not mediate. |
| 6 | 36 | Ibidem |
| 6 | 38 | Ibidem |
| 7 | 45 | LMO release into the environment takes place in developing countries more often than not. We believe that this circumstance directly affects the consequences of the release and should be taken into account. We suggest this is mentioned in the document. |
| 7 | 46 | Kevis Esvelt (MIT Professor) suggests that this would be the approach. However, the proposal to have free, prior and informed consent as a pre-condition to release synthetic organisms could be used as a way to wash responsibilities in case of damages. |
| 7 | 47 | If this position prevails, it will be impossible to release synthetic organisms into the environment. |



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| 8 | 51 | The word or the key concept here is "gene drive", instead of "containment" (something that is possibly impossible to ensure in any environment) should be thought of mechanisms (genetic or chemical) that reverse or moderate the gene drive. |
| 0 | 0 | Regarding the recreational use of synthetic biology techniques in the growing "do-it-yourself" (DIY) community and the public at large outside of formal laboratory facilities, we believe these practices are highly valuable because they enable an educated relationship between the general public and LMOs. We think these practices should be permitted as long as they do not pose a threat to biodiversity or mankind. Regulation should aim at making these practices safe rather than labelling them as undesirable. |
| 0 | 0 | The potential risks posed by synthetic biology are not larger than those posed by other fields of engineering, such as oil extraction or mining. We believe this is the case because the technical aspects are, at the end of the day, less relevant to biodiversity than economic, political and intellectual property issues. |
| | | In general terms, it is pointed out that the current works of synthetic biology are scarce and that they cannot serve as a sufficient basis to analyze what their future practical applications could be, and even less the impacts that could have on biodiversity. Neither should measures be adopted capable of generating unnecessary obstacles to international trade in products derived from synthetic biology based, for example, on the lack of knowledge about the techniques or on discrimination by method of obtaining the product. |
| | | Argentina considers that the establishment of an adequate, solid regulatory system capable of being modified and adapted to the evolution of new technologies is the tool that allows enhancing the benefits of new technologies (including modern biotechnology and biology synthetic) as well as reduce the possible risks and mitigate the possible adverse effects. |

1. Completed forms can be sent to Secretariat via e-mail at synbio@cbd.int or submitted online at <http://bch.cbd.int/managementcentre/edit/submission.shtml>

2. Additional rows can be added to this table by selecting "Table" followed by "insert" and "rows below"