

I] Responsible Screening Practices...

According to the SynBio Report, asserts that many though not all commercial gene synthesis firms screen sequences before actually synthesizing DNA synthesis. This Such screening involvesing the comparisong of a sequence to with known “dangerous” sequences, i.e., sequences which that confer pathogennicity pathogenicity, or which could increase enhance the stabilities stability and persistences of the engineered organism in the environment. Routine Sscreening is routinely carried out accomplished by meansusing of commercially available software such aslike the Craic Blackwatch software. However, thisThe system is not not however foolproof, and updates again and again must always be made to the software must be continually updated to so that include recently uncovered identified “dangerous” sequences are included in a screening parameters.

Comment [A1]: In American English, place a comma after the Latin abbreviations i.e. and e.g.

Such sScreening practices of this type have evolves evolved independently of regulatory intervention, and an they somehow represent industry standards they represent somehow. The next next step logically are, step is to enforce and evolve these such standards through meaning of appropriate regulation. This can be done achieved on bi two levels:

- The Biosafety legislation of in various international nations jurisdictions could be corrected amended to require gene synthesis firms and research organisations organizations operating within their territories of jurisdiction to carry out conduct screening for dangerous sequences, to the in accordance with the international industry standard (called the Best Practice Procedures in the SynBio Report). An independent regulate regulatory body may could be authorised authorized by legislation to determine the very large key aspects of the screening programme, thus allowing which would allow the standard to grow big as more information becomes available. This Such a regulatory body should would require need to be confer with research ers, universities, and all other interested parties stakeholders before a novel standard is evolved developed and being imposed on companies. Consequently, the regulate regulatory body can thus could be empowered to generate a “watching list” of potentially dangerous sequences, which can then be incorporated into standard screening software.

Comment [A2]: The text alongside has been revised to convey the intended information more concisely.

Comment [A3]: In American English, z is used in words such as organization or characterization.

Comment [A4]: In academic writing, information is presented with accuracy and conciseness. Formal language is a hallmark of academic English. One way to ensure conciseness in expression is converting phrasal verbs to formal words. For example, carried out can be replaced with performed/conducted or looked into can be replaced with investigated/examined.

- The Cartagena Protocol on Biosafety, a protocol of the Convention on Biological Diversity, may serve as the best template to regulate synthetic biology on an international level.

SAMPLE