

## 2010 International Year of Biodiversity – Call to protect the environment from synthetic organisms

Synthetic Biology aims to create completely artificial organisms. Possible applications range from medical purposes and the production of biological weapons to agriculture and energy production. There are concerns about new infectious diseases and artificial microbes that might cause the breakdown of ecological systems. In 2010, scientists publicly announced the first self replicating organism to stem from an artificially designed genome. This is a development that needs to be addressed during the “2010 International Year of Biodiversity” as proclaimed by the United Nations.

### Protect evolutionary integrity

The impact of synthetic genes or organisms cannot be predicted once they are released into the environment. They could persist and spread quickly because they can escape the control of normal gene regulation and processes of evolutionary adaptation. Synthetically derived gene sequences, designed for certain purposes, can cause unintended and adverse effects triggered by interactivity with the environment or with other gene sequences. New international regulations are needed to safeguard the evolutionary integrity of existing biological diversity. The release of synthetically designed organisms into the environment must be prevented.

### Signatories are calling for:

1. A comprehensive investigation into the potential risks to human health and the environment posed by synthetic organisms as well as broad discussion on ethical concerns.
2. Strict legal regulations, prohibitions and effective controls to protect the environment from synthetic organisms and their artificial genes.
3. Registration and permanent control of those companies and institutions that are synthesising gene sequences or organisms or using those, to prevent creation of infectious organisms or biological weapons for example
4. A moratorium on public funding of Synthetic Biology

**We are calling for a broad public debate on Synthetic Biology before further action is taken and political decisions are made.**

Name, Surname	Postal address and e-mail* <small>(*please fill in if you would like further information. This information will be removed before the lists are presented in public)</small>	Signature	Please keep me informed
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The appeal will be presented to the European Parliament, German Parliament and United Nations. Please return by 10.December2010.