## A Call for Conservation with a Conscience: No Place for Gene Drives in Conservation

New technologies have played an important role in protecting life on earth, and we the undersigned support innovation and science in conservation. However, we believe that a powerful and potentially dangerous technology such as gene drives, which has not been tested for unintended consequences nor fully evaluated for its ethical and social impacts, should not be promoted as a conservation tool.

From the climate impact of the internal combustion engine to the synthetic chemicals that have poisoned the web of life, we have learned some lessons. We now understand the serious need for precaution when radical new technologies arise, especially with gene drives, which change the rules of genetics and inheritance and have consequences beyond our comprehension.

Gene drives have the potential to dramatically transform our natural world and even humanity's relationship to it. The invention of the CRISPR-CAS9 tool and its application to gene drives (also known as a "mutagenic chain reaction") gives technicians the ability to intervene in evolution, to engineer the fate of an entire species, to dramatically modify ecosystems, and to unleash large-scale environmental changes, in ways never thought possible before. The assumption of such power is a moral and ethical threshold that must not be crossed without great restraint.

We the undersigned leaders and practitioners in the fields of science, policy, environmental protection, conservation, and law are alarmed that some conservation organizations have accepted funding for and are promoting the release of engineered gene drive organisms into the wild. They propose to use extinction as a deliberate tool, in direct contradiction to the moral purpose of conservation organizations, which is to protect life on earth. We are also concerned about the potential use of gene drives by the military and in agriculture. We note that current regulatory schemes are not capable of evaluating and governing this new technology.

Given the obvious dangers of irretrievably releasing genocidal genes into the natural world, and the moral implications of taking such action, we call for a halt to all proposals for the use of gene drive technologies, but especially in conservation.



Dr Fritjof Capra



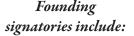
Nell Newman



Nnimmo Bassey



Cpt Paul Watson





Dr Jane Goodall



Dr David Suzuki



Dr Vandana Shiva



Tom Goldtooth

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## Signatories so far include:

- **Dr Elizabeth Bravo** Acción Ecológica, Red por América Latina Libre de Transgénicos (Ecuador)
- **Dr Elena Alvarez Buylla** Investigador Titular, Instituto de Ecología, UNAM, President of the Union de Cientificos Comprometidos con la Sociedad, (Mexico)
- **Nnimmo Bassey** Executive Director, Health of Mother Earth Foundation (Nigeria)
- **Dr Fritjof Capra** Co-founder, Center for Ecoliteracy (USA)
- **Claire Hope Cummings** Author, lawyer and journalist (USA)
- **Tom Goldtooth** Executive Director, Indigenous Environmental Network (USA)
- **Dr Jane Goodall** Founder, Jane Goodall Institute (US/UK)
- **Jaydee Hanson** Director, International Center for Technology Assessment (USA)
- **Dr. Angelika Hilbeck** President, The European Network of Scientists for Social and Environmental Responsibility (ENSSER) (Germany)
- **Andrew Kimbrell** Founder and Executive Director, Center for Food Safety (USA)
- **Dr Sheldon Krimsky** Chair of the Board, Council for Responsible Genetics (USA)
- **Jerry Mander** Founder, International Forum on Globalization (USA)
- Elizabeth May MP Leader of Green Party (Canada)
- Pat Mooney Executive Director, ETC Group (Canada)
- **Carroll Muffett** CEO, the Center for International Environmental Law (USA)
- **Dr Alejandro Nadal** Profesor Investigador Centro Estudios Económicos, Colegio de México (México)
- **Dr. Melissa K. Nelson** President of the Cultural Conservancy and Professor of American Indian Studies, SFSU (Turtle Island)

Join the growing list of those opposing gene drives in conservation. If you represent an organization that would like to sign this letter please email: genedrives@synbiowatch.org to add your organization's name.

- Nell Newman President, Nell Newman Foundation (USA)
- **Erich Pica** Executive Director of Friends of the Earth (USA)
- **Walter Ritte** Native Hawaiian activist and educator, Hawai'i SEED (Hawai'i)
- **Bob Scowcroft** Co-Founder of Organic Farming Research Foundation (retired) (USA)
- **Dr Vandana Shiva** Navdanya International (India)
- **Dr Rachel Smolker** Director, Biofuelwatch (USA)
- **Dr Ricarda Steinbrecher** Molecular Biologist, Co-Director of Econexus (UK)
- **Dr David Suzuki** Geneticist, Environmentalist and Broadcaster (Canada)
- **Dr Víctor Manuel Toledo** Instituto de Investigaciones en Ecología y Sustentabilidad, UNAM (México)
- Mililani B. Trask Na Koa Ikaika KaLAhui Hawaii, Hawaii
- **Barbara Unmüßig** President, Heinrich Böll Foundation (Germany)
- Captain Paul Watson Founder, Sea Shepherd Conservation Society (USA)
- Chee Yoke Ling Executive Director, Third World Network (Malaysia)