This response was submitted to the consultation held by the Nuffield Council on Bioethics on Emerging biotechnologies between April 2011 and June 2011. The views expressed are solely those of the respondent(s) and not those of the Council.

Nuffield Council Bioethics consultation

A balanced response to the consultation requires that all aspects of the proposals from their creation to their implementation and beyond be considered. It is therefore my intention to list all the issues that I consider to be of importance at all stages, and give reasons for my opinions as clearly and succinctly as possible.

With regards the questions as listed I will endeavour to answer as many as is possible.

Emerging Biotechnologies

In response to the questions:

1. Emerging technologies and biotechnologies are distinctly confusing terms as one could be used to include biological, mechanical or a number of other technologies whereas Biotechnologies has become synonymous with Genetic modification and GM crops.

2. The problem with using any terms to describe new technological advances is that many people see them as too simplistic and these terms hide a lot of the detail. It is the detail that is crucial to a full understanding of the potential impacts of any new technology on the human and environmental landscape.

3. Genetically modified crops and food containing GM ingredients are the most common source of current ethical concern. Simply put the British public do not want to eat GM food yet the government insist that we must. This is totally wrong and unethical. In terms of why politicians are elected it must be remembered that they are where they are because we elected them. Not so they can dictate to us about what we can and cannot do but to respect our wishes and administer our nation according to our demands and expectations.
My personal expectations are that they start to listen to what I am saying and stop trying to force me to eat GM food or food containing GM ingredients.

The same can be said about cloned livestock. This is not a natural way to create new life. It is a mad Frankenstienian nightmare enacted by equally nightmarish scientists with too much time on their hand and too many vested interests in glory seeking and back patting.

Nature has done a more than adequate job of providing us with all our needs since we first evolved. Humans cannot improve on this achievement despite what the mad scientists would want us to believe.

The awful truth is that there has never been any long term independent research into the effects on human and animal populations of the consumption of GM food. Not one. To suggest rather naively that the US population has been eating GM food for 20 + years with no problems is to treat the British people like idiots. Truth number one is that you cannot conclude a safety case on the basis that no-one has complained of ill health from GM food consumption because up until very recently most Americans didn't know they were eating GM food and there are no labels on any food to show which contains GM and which does not. It is impossible to follow any trail to find the cause of any illness conclusively with regards to GM food consumption. Besides which the whole purpose of not labelling the food to show any GM ingredients was to protect the biotech corporations from any adverse publicity that may affect their profits. After all they were given presidential approval to do what they have despite no evidence to support the wild claims of productivity and low chemical reliance. These issues have since been discredited conclusively yet Monsanto, the main antagonist in this arena, still deny there is any truth in the new evidence that their crops do not produce more than conventional crops.

Bt corn modification has been found to be harmful to humans and Glyphosate has been discovered to be responsible for causing birth defects in humans. Now this is what happens with modern technological ideas. They end up in the real world on the basis of limited research. They get full usage until problems occur and then they are withdrawn but not before the corporations have a suitably profitable replacement for the same market. Which usually turns out to be just as bad as the previous technology? DDT, Agent Orange, Dioxins, PCBs and a raft of other chemicals which travel under different names around the world mainly for the purpose of disguise. Rumours travel fast in the modern world so it does not bode well to keep the same identity.

Cultural, International and Historical Context

Cultural behaviour has been focused on subsistence farming and seed saving along with food security and food sovereignty. Sadly the invasion of NAFTA and the so called green revolution it simply carved up the territory for the US to exploit. Now the farmers have abandoned their land to live in cities as poor refugees because the imports which are heavily subsidised by the US government undercut their costs making it economically suicidal to try growing their own crops. This in turn leads to the abandoned lands being

deemed open to seizure by foreign nations under the World Bank guidelines despite it being the fault of the US that these lands were abandoned in the first instance.

This cultural invasion of US modern technologies is simply a ruse to secure control over larger tracts of food production. As several eminent men in politics in the US have said 'If you control the food supply you control the people'. Now I firmly believe that that is what the US is doing.

As for the consultation I suspect it is trying to gather information to build a substantial presentation case so that the public will be bought by the glamour and promises that the sales pitch will offer.

Call me cynical but i have yet to see a consultation that does not simply take the words of the people and twist them for other means.

With regards to the international context the US is definitely trying to control the world. If we as a nation try to engage in direct competition with them in the field of biotechnology or synthetic biology we will lose and we will become their pawns in the greater global game of chess. The only way to win or survive is to follow our own course and make it one which promotes the precautionary principle at all times.

Our trade agreements with the US are governed by the WTO who enforces all nations to follow rules mainly constructed by the US officialdom. They serve no purpose other than to ensure fat profits for US industry. If you think otherwise then you have not been keeping your eyes on the ballgame.

The US is hell bent on forcing the UK and Europe to adopt GM technology simply so that Monsanto, Dow, Syngenta and a whole host of other US companies can profit from controlling the bigger global agricultural and food production market. If this situation comes to pass then organic food options will cease to exist, ill health will become the norm and biodiversity will become monoculture mania. Nature will fail and so will we.

Ecosystem functionality depends upon a diversity of species and a diversity of inputs. Monoculture agriculture is a failure in this regard. The future sustainability of food production depends upon us maintaining as natural and balanced an environment as is possible.
Trying to claim that we need Genetic Modification techniques to feed the growing global population is not only disingenuous but is a downright lie. It cannot feed the growing population because it depends upon too many fossil-fuel derived inputs to sustain itself and the same fossil fuels will become even more depleted as the population expands. Once fossil fuel is gone there will be no more food from chemical agriculture because there will be no more inputs of artificial fertilisers or chemical pesticides which these farms have become dependent upon.

Pesticide addiction is a bit like needing constant antibiotics to keep the germs at bay. The chemical pesticides keep the harmful predatory forces at bay because the helpful ones were destroyed the very first time we used these chemicals. The agricultural landscape is so devoid of nutrient as a result of degraded agricultural practices encouraged by greedy agrichemical corporations that artificial fertilisers are constantly needed. The natural soil microorganisms that plants relied upon to help scavenge for minute mineral elements are missing completely. The farmers can no longer sustain crop growing without the artificial inputs. It will take several years of intensive care to restore the soil microorganisms and organic matter that has been depleted.
The only possible solution to the future fossil fuel shortages that we are currently facing is to revert back to organic agriculture. A method of agroecology as supported by several groups globally promises a sustainable future, particularly for the subsistence farmers in developing nations. Olivier De Schutter presented a paper that showed how this technique could help feed the developing nations and restore biodiversity and combat climate change.

http://www.srfood.org/index.php/en/component/content/article/1-latest-news/1174-report-agroecology-and-the-right-to-food

No mean feat and one which fancy biotechnologies will never match.

There have been far too many propaganda exercises which always play on peoples sympathies with regards developing nations. Take Ethiopia for example. Most people are familiar with the terrible famine that spawned Live Aid in 1985. What many people did not realise was that we were more to blame for it than the Ethiopian people themselves. I don't suppose you will know what global dimming is?

http://www.youtube.com/watch?v=SPPbmXSI1ZM

The documentary is from the BBC Horizon team and may appear a little dated but the problem is not dated. It is still with us. Our behaviour is affecting more people in other countries even when we are not in their countries.

Historically we have always been the colonial invader and we have destroyed many places and cultures on our travels. The current interest in biotechnologies is somewhat worrying because of the impact upon the developing nations who seem to be in the firing line once more. The current trend which is being fuelled by the stock markets is land grabbing in Africa. Also there is substantial evidence that biotechnology companies are desperately trying to connive their way into African nations to expand their industry and their control of the food production market. This is another example of the deliberate exploitation of people supported by big governments who are corrupted by the corporations. Britain is just as guilty but we hear less about that from our press and media. I naturally get very suspicious of our news reporters honesty when I read of things from some of my other sources and nothing in our national news.

I view this consultation with great suspicion after I read the supporting document. The impression I got was that it was simply an information gathering exercise so that the facts gathered could help to create the perfect sales pitch for any and all emerging biotechnologies. The truth as I previously stated is that the British people don't want GM food or their food contaminating with cloned meat derivatives or toxic chemicals. This is why the organic food market has been expanding worldwide despite the global recession.

Nanotechnology is another bone of contention. As with most new technologies there has been barely any research and investigation into possible problems with it.

Chinese researchers discovered a problem with regards crop productivity as a result of nanoparticles in the environment from human waste sources. They threaten to reduced the amount of grain produced by a large amount if the soil becomes contaminated with nanoparticles.

http://www.scidev.net/en/china/news/escaped-nanoparticles-hazardous-to-crops-says-study.html

It is already common knowledge that these particles have adverse effects on plant tissue.

http://nanoall.blogspot.com/2010/11/nanomaterials-and-plant-growth.html

There are other concerns with human health issues as these particles are becoming more prevalent in cosmetics, sunscreens and packaging materials.

A sensible approach would be to restrict these novel ideas to the laboratory, hermetically sealed to prevent escape, and left there for all time because the science behind them has not proved their safety beyond all doubt. To simply suggest that there is a statistical probability of less than x % of a problem arising is not acceptable. There has to be no risk before any new technology is introduced.

Conclusion

I am running out of time to post this consultation response so I will briefly summarise my concerns.

1. Insufficient research and fully validated independent trials have been conducted with regards all these novel ideas
2. There has never been a single solitary reason for these technologies to be introduced other than profitability despite the press and media campaigns to sell them
3. The risks far outweigh any potential benefits on all fronts
4. The precautionary principle should always be applied no matter the delays, costs or inconvenience
5. The consumers are not guinea pigs

6. The natural environment is not an extension to your laboratory
7. We only have one planet so stop trying to screw it up with your Nobel peace prize attempts
8. Mother Nature already has the patents on all biological life forms so the idea of synthetic biology is a definite no go area
9. I live here too and I don't trust your motives for introducing these novel technologies

I trust that the above comments will make you fully aware that I feel that we have far more important issues to be dealing with. We need to tackle the real issues with the tools and resources that we already possess and not try to continually invent our way out of trouble.

The corporations who fund much of the research that this consultation is considering do so with only two ambitions in mind.....Profit and control of the global market. The people are being manipulated to accept the commodities that the corporations want them to accept instead of the people being allowed to decide and choose the commodities that they want.

Do we really need a new technology to do exactly what we are already doing and have been doing since the dawn of time? The answer is no. As we run out of resources faster than we can discover new supplies it is becoming apparent that we cannot sustain this mad frantic dash towards some idealised future nirvana. We are running out of fuel. We will cease to have the means to traverse the planet without relying on some new energy generation technique. We have a global population which will outstrip the fuel supplies available very soon. Our climate is changing beyond safe boundaries and all you want to do is invent new life forms and modify natural organisms and create artificial life. I personally think it would be more beneficial to concentrate on filling in the missing blanks on the scientific discoveries that we have already made rather than create even greater problems than the ones we think we have already resolved.....which we haven't as is apparent with the toxic pollution, primitive energy generation methods and the archaic transport systems that we still treat as being cutting edge technologies.

I believe it is time we reassessed our future. The immediate problem we face is not whether we can feed ourselves. It is whether we can reign in our bad attitude to each other and the planet. It is whether we can control our greedy and avaricious behaviour.

We really do need to prepare to weather the coming climate storm. No amount of innovative and novel science will do that.