

# Background on CAE

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Critical Art Ensemble has very publicly and legally performed scientific processes to demystify them and make them accessible to audiences. “Free Range Grains,” CAE’s latest project, includes a mobile DNA extraction laboratory for testing food products for the presence of genetically modified organisms.

The biotech industry is a very little understood force transforming our lives with almost no public input. In the case of genetically modified agriculture, transgenic crops were approved by the FDA for commercial use in 1994 with no studies on the long term effects on human health and the natural environment, no plan for tracking those effects, no liability for the corporations selling this technology, and no public debate. Slowly over the last decade, US consumers have become aware that all foods containing corn, soy or canola are genetically modified, unless they are labeled organic. Still the majority of the population does not realize they are part of an immense unregulated experiment. There are no labels for these ingredients. When the industry states that there are no studies on these products indicating harm to human health, what they are saying is that there are no studies. The one bona fide independent study conducted did suggest damage to the intestines and other organs of rats. This study basically ended the 36 year career of Dr. Arpad Pusztai at the Rowett Research Institute in Scotland. Days after he spoke publicly of his findings in August 1998, Dr. Pusztai was removed from service, his research papers were seized, and his data confiscated; and he was prohibited from talking to anyone about his research work.

The new corn, soy, canola, and cotton were engineered to resist herbicides sold by the same company selling these seeds and/or to contain a bacteria toxic to pests that feed on the crop. These traits were marketed to produce higher profits for the companies that control them as intellectual property; they were not about nutrition or flavor or even increased crop yield. Claims that the transgenic products would reduce the use of pesticides and herbicides in the field (and incidental claims that

they would produce higher yields) have proven to be false.

The equipment that CAE used to test common food products to demonstrate the presence of transgenes has been confiscated by the FBI although field and laboratory tests have shown that it was not used for any illegal purpose, nor is it possible to use this equipment for the production or weaponization of dangerous germs. Furthermore, any person in the US may legally obtain and possess such equipment.

When the Joint Task Force on Terrorism searched Kurtz's home, he was in the midst of researching the issue of biological warfare and bioterrorism, to assess the actual danger these weapons pose and to bring U.S. policy on such threats into public dialogue. To do this research, he had many books on the subject and had legally acquired three bacteria commonly used as educational tools in schools and university biological departments. One might conjecture that these are the "biological agents" indicated in the charges against Kurtz. They are *Bacillus globigii*, *Serratia marcescens* and *E. coli*.

Harmless to humans, *Bacillus globigii* is extremely common and found easily in samplings of wind-borne dust. BG is safely used in biological studies as a stand-in for pathogenic bacteria. It is used as a biological tracer for anthrax because its particle size and dispersal characteristics are similar to those of anthrax. A household bleach-and-water solution easily kills it.

*Serratia marcescens* is another harmless, common microbe which lives in soil, water, on plants, and in animals. It is distinguished by bright red color and may grow on bread and other edibles stored in a damp place. Various Christian miracles in which communion wafers seemed to "bleed", have now been thought to be a result of *S. marcescens*.

Because this microbe is so common, because of its bright hue and because it used to be considered benign, scientists and teachers frequently used it in experiments to track microbes and to demonstrate the importance of hand washing. For example, it was used in handshaking experiments in which one person dipped a hand in a broth of *S. marcescens* and then shook hands with another person who in turn shook the hand of another and so on down the line.

More recently, *S. marcescens* has been found to be pathogenic in rare cases. Lung or bladder infections have occurred mostly in hospitals in patients who already have a compromised immune system (such patients are much more vulnerable to any bacterial infection). Consequently one might find that it is no longer recommended for use in schools and is not as commonly used to track bacterial movement in the environment. But it is still widely used in educational institutions; for example, I found a webpage of high school student reports on their own experiments using this bacteria. It also can be killed with bleach, which is often recommended by city water departments when customers inquire about the reddish film that may appear in toilets.

[Another detailed account of a high school student working with the same bacteria.]

<http://www.sas.org/E-Bulletin/2004-03-05/labNotes/body.html>

*E. coli*, a well-known intestinal flora, is one of the most widely used bacteria in biological laboratories. There are many different strains; some that receive periodic attention in the media are responsible for foodborne illnesses. This is very distant from the particular strain found in Kurtz's possession. What he had is a variation of the benign form found in our stomachs, which had been even further disarmed by laboratories.

One of the technicalities on which the prosecution may focus is the definition of a biological agent as one that has been extracted from a natural source (bear in mind that is only speculation). Even though the bacteria in question would be easy to collect in any household, the particular samples Kurtz possessed were cultured in a lab and purchased.

The accusations derive from the USA PATRIOT ACT OF 2001, SEC. 817 EXPANSION OF THE BIOLOGICAL WEAPONS STATUTE (H.R. 3162):

“Whoever knowingly possesses any biological agent, toxin, or delivery system of a type or in a quantity that, under the circumstances, is not reasonably justified by a prophylactic, protective, bona fide research, or other peaceful purpose, shall be fined under this title, imprisoned not more than 10 years, or both. In this subsection, the terms "biological agent" and "toxin" do not encompass any biological agent or toxin that is in its naturally occurring environment, if the biological agent or toxin has not been cultivated, collected, or otherwise extracted from its natural source.”

For an excellent source evaluating the current diversion of public monies into bioweapons research and defense and the consequent militarization of the health system, as well as the disruption of other extremely important immunological research, please see “Bioterrorism Preparedness: Cooptation of Public Health?” By Victor W. Sidel, MD; Robert M. Gould, MD; Hillel W. Cohen, DrPH  
<http://www.ippnw.org/MGS/V7N2Sidel.html>

The Council for Responsible Genetics has also produced and collected many papers on the subject: <http://www.gene-watch.org/programs/biowarfare.html>

See in particular their Boston University Biodefense webpage:  
<http://www.gene-watch.org/bubiodefense/pages/resources.html>

The implications of the current charges against Kurtz, given what we know about the evidence, is that it is illegal for a citizen to possess

materials commonly used for research in legitimate institutions everywhere. If we allow the government to call this terrorism the effects will be felt not only by artists, academics, amateur scientists and researchers of all kinds but will exacerbate the chill already being felt by institutional scientific research.

The case of highly respected infectious disease researcher Dr. Thomas Butler has already demonstrated the deleterious effects of unfair and disproportionate persecution of researchers on all scientists. To quote a statement by four Nobel laureates in support of Dr. Butler, “the determination to convict Dr. Butler and put him in jail sends a strong message to the scientific community that runs counter to the best interests of our country and scientific research. It says: this 62-year-old man, who voluntarily reported missing material and cooperated with federal investigators, is now being repaid with a ruined career and a personal cost from which he and his family will never recover. The message says that those scientists most involved in bioterrorism-related research are most likely to be victims of punitive attacks at the hands of federal authorities. We worry that the result will be reluctance to engage in this urgently needed type of research.”

<http://www.fas.org/butler/nobellet.html>

In a time when there is no public authority willing to protect and inform citizens against the interests of corporations (in the case of transgenic agriculture) and when millions of public dollars are being rerouted toward a militarization of public health research, art has become a place where issues can be brought into public light, understood and discussed. Many artists are currently training themselves in science and technological methods in order to better inform audiences of the processes affecting their health, their choices and their lives. These artists are not pretending to be scientists, but they are performing “prophylactic, protective bona fide research” toward educational “or other peaceful purposes” (as stated by H.R. 3162 provisions under which it is legal and permissible for a citizen to possess biological agents).

Researched and compiled by Claire Pentecost