

Of Patriots and Profits: New Tools for Keeping Academic Research in Line

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How much is the federal government policing scientific research? How has this policing changed existing government-research relations within the academic research sector? The recent FBI investigation of Professor Steven Kurtz and the internationally acclaimed artists' collective Critical Art Ensemble (CAE) inspired us to take a closer look at the current administration's use and misuse of the expanded government and law enforcement powers granted by the USA PATRIOT Act. Since the investigation of Kurtz was initially articulated through the framework of terrorism, this essay asks if the USA PATRIOT Act was used to enable that investigation. But we also want to extend the analysis of this case in particular to inquire about the ways in which the USA PATRIOT Act has had an impact on bona fide research conducted within American educational institutions. Under the rubric of biosafety and biodefense, the USA PATRIOT Act introduces new regulations applicable to biology labs and the institutions that house them. How are these regulations and their violation relevant to the Kurtz case?

The Case

On the morning of May 11, 2004, Steve Kurtz, a professor at the State University of New York at Buffalo and a founding member of CAE, woke up to find that Hope Kurtz, another founding member of CAE and his partner of twenty-seven years, was not breathing. He called an emergency medical team, but they were unable to revive her. Later it was determined that she had died of heart failure. Because

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this was an unexpected death of a relatively young woman, the local police came to investigate the scene.

In the large hall outside the bedroom, police noticed a table laden with scientific equipment in plain view. Like all police in the United States, the Buffalo police now think terrorism when confronted by something difficult to explain. Kurtz accounted for the equipment, explaining that, as an artist, he used it to create educational events through which the public could become more familiar with commercially applied science. The police searched the house for several hours and then notified the FBI. The next day, as Kurtz was leaving home to make funeral arrangements, three carloads of FBI agents pulled up in front of his house and detained him for extended questioning. Still in shock over the death of his wife, and assuming he had nothing to hide, Kurtz was fully cooperative. His detention lasted twenty-two hours, or until the afternoon of the next day, when finally, by way of cell phone, he was able to get in touch with a lawyer who immediately told him that his detention was illegal and that he should walk away. The FBI informed Kurtz that he was free to go, but told him that he could not go home. The FBI—working with the Department of Homeland Security, the Joint Task Force on Terrorism, the Department of Alcohol, Tobacco, and Firearms, the Immigration and Customs Enforcement, and the Niagara County Sheriff's office—had closed Kurtz's street with police cars, fire engines, and medical emergency personnel while they sent in a team of agents in hazmat suits to search the house for biohazardous materials. Five days later, Kurtz was able to return to his house after the Buffalo Health Department and the FBI had determined that nothing there was dangerous or illegal. Nevertheless, the FBI had confiscated his scientific equipment, computers, notes, a shelf of history books about science, epidemiology, and biowarfare, Kurtz's passport and other personal documents, as well as Hope Kurtz's body. So far, only Hope's body, a few books, and most of his personal documents have been returned. His passport, having been turned over to the federal clerk, can be obtained for work-related reasons only with permission from his probation officer.

Investigators, if they had looked, would have been able to find scores of public sources, in print and on the Web, on the work of the CAE, a seventeen-year-old collective of artists of various specializations dedicated to exploring the intersections between art, technology, radical politics, and critical theory. Over the past seven years, the CAE has developed a body of work addressing the politics of biotechnology. The collective's work manifests itself in the form of book projects, installations, public performances, and direct-action projects. As part of its performance and installation work, the collective often uses the materials of science itself, including laboratory equipment and wetware (bacteria) to address issues that arise around the commercial application of developments in the life sciences. Those materials have included transgenic forms of *E. coli* bacteria, a cryo-tank for keeping frozen

DNA samples, and an entire mobile DNA extraction laboratory. In these projects, the CAE promotes hands-on experience with the materials of science as a way to demystify scientific research and process and related politics. Usually this kind of knowledge and experience is reserved for experts and takes place behind laboratory doors closed to the public.

Having few educational tools in this area, the general public typically has had to rely on the media for its only source of information with respect to biotechnology, a field rapidly transforming our lives. The CAE seeks to open the laboratory doors in order to provide nonspecialists with a sense of agency in regard to the life sciences and stimulate an informed public debate surrounding issues related to contemporary uses of biotechnology.¹ For instance, a CAE project called “Free Range Grains” includes a complete DNA extraction laboratory equipped to test food products for the presence of genetic modification. In public places such as cultural centers and museums, the CAE sets up the lab to test common brand-name foods like cornflakes or corn chips. Audiences are able to see the whole process, talk to the artists while they work, and learn about the issues surrounding genetically modified foods.

Apparently the long history and public visibility of the CAE’s work did nothing to convince the FBI and the Justice Department that Steve Kurtz is a responsible artist with a highly credited professional track record and no intent to harm the public. Within barely a week, two members and collaborators of the CAE were served with federal subpoenas while preparing an art exhibition at the Museum of Contemporary Art in Massachusetts. The artists were ordered to appear in front of a federal grand jury investigating Kurtz on possible violations of the Biological Weapons Statute (HR 3162), expanded by the USA PATRIOT Act of 2001.

Over the course of the next month, eight more individuals known to the authors received subpoenas. These were members and associates of the CAE, as well as colleagues and one student of Kurtz’s. The majority of the subpoenaed subjects exercised their Fifth Amendment rights since in addition to serving as witnesses in the case, they were also potential subjects of the investigation. Because grand jury proceedings are secret, it remains unclear who else has been served court orders or who may have testified. In addition to the individuals, Autonomedia, a press based in New York City and the publisher of the CAE’s five books, received a subpoena to present all correspondence and business documents related to the accused.

The Role of the USA PATRIOT Act

Prior to October 2001, federal law prohibited the development, production, transfer, or possession of any biological agent, toxin, or delivery system for use as a weapon.² The USA PATRIOT Act expanded this law by prohibiting possession of a biological agent, toxin, or delivery system “of a type or in a quantity that, under the circum-

stances, is not reasonably justified by a prophylactic, protective, bona fide research, or other peaceful purpose.” The lines quoted here are the lines quoted in a text attached to the subpoenas. Penalties for noncompliance include large fines and imprisonment for up to ten years.

Furthermore, the USA PATRIOT Act also restricts access to certain materials. Restricted persons may not possess, ship, or receive any biological agent or toxin listed as a so-called select agent. Select agents include lethal pathogens such as samples of the Ebola virus. The phrase *restricted persons* means any individual who

- A) is under indictment for a crime punishable by imprisonment for a term exceeding one year
- B) has been convicted in any court of a crime punishable by imprisonment for a term exceeding one year
- C) is a fugitive from justice
- D) is an unlawful user of any controlled substance (as defined in section 102 of the Controlled Substances Act (21 U.S.C. 802))
- E) is an alien illegally or unlawfully in the United States
- F) has been adjudicated as a mental defective or has been committed to any mental institution
- G) is an alien (other than an alien lawfully admitted for permanent residence) who is a national of a country to which the Secretary of State, pursuant to [applicable law], has made a determination (that remains in effect) that such country has repeatedly provided support for acts of international terrorism [currently Cuba, Iran, Iraq, Libya, North Korea, Sudan or Syria]
- H) has been discharged from the Armed Services of the United States under dishonorable conditions.³

This section of the act makes quite clear the terms on which a person may be accused of violation. The U.S. Department of Justice could have easily ascertained, without a grand jury investigation, whether or not Kurtz was a restricted person or if he was in possession of any select agents. Despite the language attached to the subpoenas, however, the prosecutor of this case, U.S. attorney William Hochul, has publicly maintained that the accusations have nothing to do with the USA PATRIOT Act. Indeed, this was proven true when, on June 30, 2004, Hochul finally secured charges from the grand jury investigation. Kurtz, along with Robert Ferrell, a professor of genetics at the University of Pittsburgh and a longtime colleague and collaborator, was indicted for two counts each of mail fraud and wire fraud. In this particular case, wire fraud refers to the use of the Internet and credit cards to purchase the bacteria; mail fraud refers to the use of the U.S. Postal Service to receive and send the materials. Mail fraud and wire fraud are federal crimes carrying sentences of five years each. Since each of the defendants is charged with two counts of each crime, both are facing the possibility of twenty-year sentences. Interestingly

enough, the laws on which these charges are based have nothing to do with bioterrorism; they have to do with property. What, then, did Kurtz and Ferrell actually do to earn such charges?

Public Threat, Private Interests

Certain biological samples are regulated because they pose health risks, but all commercially available samples, both the potentially dangerous and the certifiably safe, are regulated as property. University labs enter into agreements, called Material Transfer Agreements or MTAs, with the companies from which they buy biological agents. The scientist in charge of a laboratory at a university or research institution will sign a contract saying the lab will not share, sell, or give away the materials transferred. This is especially sticky when one considers that bacteria reproduce themselves.

For a new CAE project, Ferrell helped Kurtz obtain samples of three harmless bacteria commonly used in biology labs and occurring naturally in our environment. Typically, researchers buy these samples from companies like American Type Culture Collection, which produces biological samples for research labs and educational institutions. As evidenced by the e-mails between Kurtz and Ferrell quoted in the indictment, Kurtz wanted to be sure the supplies he was getting were as safe as possible, because he knew that some variations on these bacteria could, in fact, be pathogenic. This is especially significant as Hochul, despite Kurtz's documented concern, continues to cast the case as an issue of public safety.

The moment that Ferrell used his University of Pittsburgh contract with American Type Culture Collection to obtain \$256 worth of bacteria samples, which he then mailed to Kurtz, Ferrell broke what was essentially an intellectual property contract. According to the U.S. attorney's office, Kurtz obtained these materials under the fraudulent representation that they would be used only in Ferrell's lab. As far as we know, this is the first time such charges have been applied to MTAs. These are contractual agreements surrounding the sale and purchase of a material whose reproduction, once in the hands of the consumer, is difficult to control.

In the established culture of biological research, sharing samples and other materials freely is the norm. By all accounts from scientists, it forms part of the cooperative approach to knowledge that until recently has characterized most scientific fields. It is about as common as sharing music has become to a generation of listeners. But while the lawsuits that have resulted from the sharing of recorded music are prosecuted by the industry against the consumer, in this case the government has stepped in to escalate the questionable interpretation of a contract agreement to the very serious federal charges of mail and wire fraud. Neither the American Type Culture Collection nor the employers of the two professors—the University of Pittsburgh and the State University of New York at Buffalo—filed complaints or

concerns regarding the collaborative efforts and resulting exchanges between Ferrell and the CAE. Thus we must look further into the relationship of science and commerce to understand why the government wants to pursue this case.

Material transfer agreements are signed by the head scientist in any given laboratory, but they are also handled by technology transfer offices, which also take care of patents. The phrase *technology transfer* refers to the transfer of research results from universities to the commercial sector. The growth of these offices in universities is a bureaucratic sign of the increasing involvement of private interests in scientific research. This influence is working from both inside and outside the scientific community in the form of patents that can be obtained on living materials produced or modified in the lab, as well as the processes used on them. A large part of the growth of these offices is attributable to the Bayh-Dole Act of 1980, conceived as an incentive to national technological advancement that made it much easier for scientists (and universities) to patent, and thus profit from, their own research. Increasingly, it has also made it difficult to separate the kinds of research scientists actually decide to do from how much money they stand to make.

The money is potentially very big. The so-called life sciences have become one of the big investment areas of our time, with the pharmaceutical industry for several years claiming the top profit-making capacity in the world. Scientists partner with investors or venture capitalists to create small start-up companies that develop discoveries into marketable products. Often the most successful ventures from this level grow, go public, and are bought out by a larger corporation. Effectively, scientific research has come to play a substantive role in driving the postindustrial economy. The mechanism by which scientists have the opportunity to make more money than ever anticipated is the same mechanism that enables neoliberal market forces to control the direction of research at public institutions. To get a picture of how these forces have affected research in the life sciences, consider the following: according to the Human Development Report 2001, published by the United Nations Development Programme, 1,223 new commercial drugs were released worldwide between 1975 and 1996, but only 13 were developed to treat tropical diseases.⁴ Drugs aimed at the problems of an impoverished population—and hence poor markets—are much less likely to command the research and development resources that an affluent market enjoys.

In addition to the lure of patents imagined down the pipeline, more and more scientists conducting research at public institutions are encouraged to forge partnerships with private corporations. The presumption is that these joint ventures offer the best way to drive scientific progress; competition is good for scientists and good for society because it drives the economy. Of course, like the patent system, reliance on such funding shapes the very questions that science sets out to ask. But it also reshapes the way in which scientists work. Research done in the interest of

commercial development and likely to be patented or used in trade secrets is as jealously guarded as research used in secret military projects.

The most publicly controversial case of corporate funding in a public university was the five-year research agreement between plant biologists at the University of California at Berkeley and the biotechnology company Novartis (now part of Syngenta), which expired in November 2003. The deal awarded the members of Berkeley's Department of Plant and Microbial Biology access to trade secrets, principally in genetics, and \$25 million. In return, Novartis had the right to negotiate licenses on inventions by faculty members who participated in the agreement, even if the work had been financed with federal funds. Given that the agreement stood at the center of fierce controversy from the beginning, the concrete results seemed somewhat anticlimactic as no dramatic discoveries were made during the contract period and Syngenta did not license a single invention. The strategic alliance, as it was called, between Berkeley and Novartis included money to commission an independent evaluation of the exchange, which was released in August 2004. Executed by a group of social and natural scientists at Michigan State University, the study reports that the agreement became a lightning rod for divisions within the College of Natural Resources and a new kind of Achilles heel for the credibility of both the department and the university. Relations among faculty members within the college "continue to be a serious problem," the report observes. "Such a poor state of collegiality hinders the productive capacity of the college as a whole and the quality of education that it is able to provide."⁵

One of the flash points for divisions within the Department of Plant and Microbial Biology at Berkeley was the tenure case of Ignacio Chapela, an assistant professor and outspoken critic of the deal. The Novartis deal "played a very clear role and an unsatisfactory role in the tenure process" of Chapela, said Lawrence Busch, a professor of sociology at Michigan State University, who headed the evaluation.⁶ More than two hundred academics and others have called for an investigation of the tenure denial for Chapela. As of this writing, the Academic Senate's Committee on Privilege and Tenure is investigating whether he received due process, but his term of employment expired on December 31, 2004.

In the wake of this corporate-academic controversy, it is hard not to connect Chapela's extended troubles with the fact that it was he who, along with graduate student David Quist, discovered the presence of transgenic corn in Oaxaca, Mexico. This discovery ignited an international conflagration, not only because the planting of genetically modified corn is illegal in Mexico but because Oaxaca is considered the center of genetic diversity among maize plants. Apparently the United States has been dumping such corn, used for animal feed and human consumption, into the Mexican market for years.

The report does not indicate whether the Berkeley-Novartis strategic alli-

ance actually influenced the direction of research at the school. However, in an editorial in the Berkeley *Daily Planet*, Andrew Paul Gutierrez and Miguel A. Altieri illuminate the dark continent of questions that were outright ignored by the evaluation:

The report . . . assumes at Berkeley that the rise of biotechnology and the fall of applied agricultural fields such as biological control, plant pathology, soils and others is just part of the natural progress of science; a mere part of the process of modernization. In fact, according to the review, the “deal” appears consistent with the universities adjusting to the emerging norms of university-based economic development and gives the impression that science at Berkeley is protected from the influence of politics and corporate power.⁷

Whatever ethical issues are raised by the Berkeley-Novartis alliance, one could argue that the controversy is a symptom of a crisis in the mission of universities nationwide. Of the various possible mandates for universities in the early twenty-first century—providing conditions for independent research, creating knowledge, educating elites or the masses, training specialists for a changing job market, and stimulating the economy—only the last one of these seems to be gaining ground, normalized quickly and silently as intellectual property regimes and corporate funding opportunities take hold within academic culture. But the post-9/11 high-security defense paradigm adds yet another priority and is reforging an old set of relations between the state, corporations, and research institutions. The working and intellectual restrictions imposed on the life sciences have been tightening as a result of economic interests, and they are tightening even more by the conscription of the life sciences into military service.

Defending Concentrated Capital

Since 2000, there has been a sixfold increase in annual spending for biodefense in the United States. Much of this money is used to construct several new level-three and level-four biosafety laboratories in different parts of the country. Because these new facilities are designed to conduct research into very deadly infectious pathogens, they are capital-intensive complexes with very high-tech security systems that have to be maintained around the clock. All employees in these labs with access to the pathogens, from scientists to custodial staff, require background checks, and their daily routines are subject to intense surveillance. Research in universities is also becoming skewed toward biodefense in order to take advantage of new funding streams, so that labs in educational institutions will also be subject to high security restrictions affecting the culture of the entire institution and making it more hostile to the free and open sharing of research materials and information.

An earlier case, similar to that of the Kurtz/Ferrell prosecution, had already begun to dramatize the possible consequences of researchers who run afoul of

regulations or interests powered by the judiciary. On January 14, 2003, Thomas Butler, a leading authority on infectious diseases at Texas Technical University in Austin, called the FBI to report thirty missing vials of plague bacteria from his research laboratory. Under the pressure of FBI agents, Butler admitted the following night that he himself had accidentally destroyed the bacteria, a statement that he retracted shortly thereafter. The FBI investigation that followed examined his life and research activities: he was charged with lying to the FBI, smuggling plague bacteria into the country, and illegally transporting biological agents. Butler was acquitted of the former two charges but found guilty of the latter. His record shows a thirty-year career in infectious-disease research, often pursued at great personal risk. Drafted by the Navy during the Vietnam War, Butler treated plague patients overseas. In the early 1980s, he was actively involved in HIV research at a time when few scientists would dedicate their time and energy to research on the growing AIDS epidemic. Butler later returned to bubonic plague research and engaged in research relationships with hospitals located in Tanzania.

Since his legal troubles began, letters of protest on Butler's behalf have been publicized by the Infectious Diseases Society of America, the National Academy of Sciences and Institute of Medicine, the New York Academy of Sciences, and a group of four nobel laureates, to name but a few supporters. These official statements refer to the deleterious effects of the complex regulations following from the USA PATRIOT Act, and the heightened security accompanying escalated biodefense, on the practice of science. Many of Butler's supporters caution the government that such gross disproportion between the convicted offense and the punishment meted out is intimidating to scientists and, more specifically, that it will discourage scientists from working in the areas of biodefense and infectious disease research.

What has gone largely unremarked in the Butler case is the nature of the work he was doing and the program in which he was working at Texas Tech. According to a report by the Sunshine Project, Butler was working in a large and secretive biodefense program that received 70 percent of its funding from the U.S. Army Soldier Biological Chemical Command (SBCCOM), as well as other grants provided by the Air Force. The program at Texas Tech "engages in other kinds of research on bioweapons agents and toxins. This includes types of work that have drawn international criticism of the U.S. because they push the envelope of acceptability under the Biological Weapons Convention."⁸ The report points out that the mishandling of vials of pathogens is not just a threat to public health but a gross political liability to the United States internationally.

It so happens that the materials obtained by Ferrell and shared with Kurtz were acquired for a new CAE project about exactly this same issue: to raise public awareness about U.S. policies concerning biodefense. This is the kind of discussion our government and its corporate backers do not want us to have. A real public debate on this subject would include a number of currently suppressed con-

siderations. For example, according to many analysts, the threat of bioterrorism is actually very unlikely because, from a weapons-development perspective, most biological agents, with the exception of anthrax, are unstable, hard to work with, and more troublesome than explosives and chemical toxins. The problem with an aggressive biodefense program is that it remains essentially indistinguishable from an aggressive bioweapons program. Indeed, because researchers in the new level-four biosafety labs are developing deadly new pathogens in order to figure out how to defend against them, these facilities may actually increase the likelihood of previously unknown and lethal microbes.⁹ In the only bioterrorism scare in the United States, the anthrax anonymously sent through the mail shortly after 9/11 was found to be genetically identical to one developed in a U.S. government defense lab, and three years after that discovery the government still cannot locate the perpetrator.¹⁰ As shifts in federal budgets already demonstrate, biodefense spending comes at the expense of research into common infectious diseases that kill millions of people every year. The ultimate effect of such programs is the militarization of public health and the corporatization of all things military. Contracts to build and maintain high-security facilities, not unlike the enormous financial advantages gained by Halliburton and other private contractors from U.S. military operations in Iraq, are extremely lucrative, and the wealth derived from them is concentrated among the very few.

The writings published by the CAE offer a well-developed critique of this economic system. The collective also provides guidelines for empowering people and the means by which ordinary citizens can resist predatory corporate concerns. Nowhere has the CAE advertised terrorist or related activities that could be of harm to individuals. The subpoena of Autonomedia's records is just one indication that the government finds the CAE's ideas highly relevant to this case. This subpoena was made possible through section 215 of the USA PATRIOT Act, which relieves the government of providing probable cause to believe that the person whose records it seeks is involved in any kind of criminal activity. Records of any person living in the United States may be requested without providing a reason or justification. Those served with section 215 orders are prohibited from sharing that information with anyone else. The American Civil Liberties Union (ACLU) points out that these types of requests are likely to be used against persons living in the United States who exercise their First Amendment rights.¹¹ Autonomedia's subpoena was deactivated toward the end of the grand jury hearings after the New York Civil Liberties Union (NYCLU) sent a letter of complaint to the prosecuting attorney. It was precisely on the basis of First Amendment rights that the NYCLU ultimately discouraged the Department of Justice from pursuing the subpoena.

Comparing a string of judicial abuses under the Bush administration to the McCarthy era is not the only relevant hearkening to a Cold War mentality. The threat of terrorism has justified the retrenchment of a military-industrial complex

in which government and corporate structures collude to concentrate material and human resources in a disciplinary paradigm dedicated to profit and social control. The USA PATRIOT Act is only one instrument in this new old order. In the case against Kurtz and Ferrell, the license granted to government power—codified in the USA PATRIOT Act but taking many forms ultimately legitimated through the public's concern for security—is used to support an economic system in which the government is devoted to protecting the rights of large corporations to develop a maximum opportunity for financial reward and a minimum responsibility toward the public good.

Notes

1. For more information regarding the Critical Art Ensemble's work, see www.critical-art.net.
2. U.S. Code, Title 18—Crimes and Criminal Procedure, Part I—Crimes, Chapter 10—Biological Weapons, Sec. 175, Prohibitions with Respect to Biological Weapons, [uscode.house.gov/uscode-cgi/fastweb.exe?getdoc+uscview+t17t20+221+1++%28biological%](http://uscode.house.gov/uscode-cgi/fastweb.exe?getdoc+uscview+t17t20+221+1++%28biological%28) (accessed May 17, 2005).
3. USA PATRIOT Act of 2001 (H.R. 3162), Title VIII, Section 817, Expansion of the Biological Weapons Statute. The entire text of the Patriot Act and other U.S. legislation can be found in the THOMAS database of the Library of Congress, thomas.loc.gov/ (accessed May 17, 2005).
4. United Nations Development Programme, "Making New Technologies Work for Human Development," in *Human Development Report 2001* (New York: Oxford University Press, 2001), 3.
5. Institute for Food and Agricultural Standards (IFAS), Michigan State University, "External Review of the Collaborative Research Agreement between Novartis Agricultural Discovery Institute, Inc., and the Regents of the University of California," July 13, 2004, 129, www.msu.edu/user/ifas/docs/Berkeley_Final_Report_071204.pdf.
6. Goldie Blumenstyk, "Peer Reviewers Give Thumbs Down to Berkeley-Novartis Deal," *Chronicle of Higher Education*, July 30, 2004, A25.
7. Andrew Paul Gutierrez and Miguel A. Altieri, "Some Reflections on the Berkeley-Novartis Report," *Berkley Daily Planet*, August 10, 2004.
8. The Sunshine Project, "The Thomas Butler Case: Some Unreported Information and Reasons for the Department of Justice's Prosecution," news release, October 28, 2003, www.sunshine-project.org.
9. For examples, see Judith Miller, "New Germ Labs Stir a Debate over Secrecy and Safety," *New York Times*, February 10, 2004; Dan Vergano and Steve Sternberg, "Anthrax Slip-Ups Raise Fears about Planned Biolabs," *USA Today*, October 13, 2004; and "What Exactly Is the Army Up To?" *Deseret Morning News*, July 25, 2004.
10. Rick Weiss and Susan Schmidt, "Capitol Hill Anthrax Matches Army's Stocks," *Washington Post*, December 6, 2001.
11. The ACLU provides excellent background material on section 215 of the USA PATRIOT Act. For more information, see www.aclu.org.