

## **EXHIBIT D**

UNITED STATES DISTRICT COURT

FOR THE

DISTRICT OF VERMONT

GROCERY MANUFACTURERS )  
ASSOCIATION, SNACK FOOD )  
ASSOCIATION, INTERNATIONAL )  
DAIRY FOODS ASSOCIATION, and )  
NATIONAL ASSOCIATION OF )  
MANUFACTURERS, )

Plaintiffs, )

v. )

Case No. 5:14-cv-117

WILLIAM H. SORRELL, in his official )  
capacity as the Attorney General of Vermont; )  
PETER E. SHUMLIN, in his official capacity )  
as Governor of Vermont; TRACY DOLAN, )  
in her official capacity as Commissioner of the )  
Vermont Department of Health; and JAMES B. )  
REARDON, in his official capacity as )  
Commissioner of the Vermont Department )  
of Finance and Management, )

Defendants. )

**DECLARATION OF DR. CONRAD BRUNK**

I, Conrad Brunk, make this declaration pursuant to Federal Rule of Evidence 702, in opposition to Plaintiffs’ request for a preliminary injunction.

Expert Qualifications

1. I am currently Professor Emeritus at the University of Victoria where I served as a Professor of Philosophy and Environmental Studies from 2002 until 2011. I also served as the Director of the Centre for Studies in Religion & Society at the University of Victoria from 2002 until 2008.

2. I earned my doctorate in Philosophy from Northwestern University in 1974. Prior to my work at the University of Victoria, I was an Assistant Professor of Philosophy at Oakland University in Michigan, as well as an Associate and full Professor of Philosophy at the University of Waterloo in Ontario.

3. During my career, I have focused my scholarly research and teaching in the general field of society, technology and values, with particular specialization in the areas of professional and applied ethics, and the role of religion in society. I developed a major expertise in the question of the interplay of science and values in the development of standards of acceptable risk in public policy. Much of this work has focused on the impact of ethical, religious, and other social values on public policy concerning biotechnology and genetically engineered foods (GE foods).

4. As an expert in the aforementioned areas, I have been appointed to many expert committees focusing on the issues of food and agricultural regulatory policy. In 1997, I was appointed to the United Nations Food and Agriculture Organization Secretariat for Expert Consultation on the Principles of Risk Management in Food Trade, which set international standards for food safety risk management. I have chaired several Committees of the Royal Society of Canada, including its Expert Panel, commissioned by the Government of Canada on the Regulation of Food Biotechnology in Canada. This Expert Panel recommended a regime of voluntary labeling of GE foods on the condition of the implementation of regulatory testing techniques unique to GE foods. In 2002, I was appointed by the Canadian Government to the Canadian Biotechnology Advisory Committee, which advised the government on all aspects of biotechnology regulation, including the labeling of GE foods. From 2005 to 2009, I served as a Member of the Genome British Columbia Genomics, Society and Ethics Advisory Board, and in this role I actively led the sub-group assessing the ethical, social and legal aspects of genomics.

From 2011 to 2014, I served on the Expert Advisory Committee to the Canadian Food Inspection Agency, the Canadian equivalent of the USDA. In 2011, I became a founding Member of the TAFS Forum (Trust in Animals and Food Safety), a Swiss-based international expert committee of scientists, and food industry representatives of companies such as McDonalds, Nestle, Metro and Zensho, regulatory organizations such as the Swiss and German Veterinary Offices and other stakeholders. TAFS conducts studies and reports and makes recommendations to the food industry and governments on controversial and emerging issues relating to the safety of food derived from animals (e.g., mad cow disease and bovine para-tuberculosis).

5. In 2004, I was appointed to the Canadian Network of Centres for Excellence's research initiative, The Advanced Foods and Materials Network. In this role, I served as the Leader of the Genetics, Ethics, Economics, Environment, Law, and Society theme area. With grants awarded by the Network, I became the principal investigator on two projects related to genetically modified foods and organisms. The first was entitled "Factors Affecting Consumer Acceptance of GM Foods Containing Transgenes from Sources Involving Moral, Religious or Cultural Dietary Prohibitions." The second was entitled "The Ethics of Animal Biotechnology." To the best of my knowledge, this is the only published research explicitly exploring this issue.

6. I have co-edited several peer reviewed books that address issues raised by genetic engineering. The first is Acceptable Genes: Religious and Cultural Factors in Consumer Acceptance of GM Foods, published by SUNY Press in 2009. This work studies the attitudes of the major religions in North America towards transgenic materials from organisms prohibited in religious dietary rules, and explicitly addresses the question of labeling these food products. The second is Designer Animals: Mapping the Issues in Animal Biotechnology, published by the

University of Toronto Press in 2011. This book explores the ethical limits on the genetic modification of animals that would be invoked by different stakeholders in this technology.

7. The book I co-authored that has had the most widespread and significant scholarly impact is Value Assumptions in Risk Assessment. This book examines the influence of personal and social values in the conduct of risk assessment and risk management science. The perspectives of this book were the major reason I was called upon by government and academia to serve on the expert panels and committees mentioned previously, particularly in the area of food biotechnology.

8. A copy of my curriculum vitae is attached as Exhibit 1.

Act 120

9. I have reviewed Act 120, which was recently enacted by the Vermont Legislature to require the labeling of certain foods produced with GE, as well as the draft rules that are being proposed by the Vermont Attorney General's Office to implement Act 120.

10. As set forth in the Act, the Legislature enacted the law in part because “[p]ersons with certain religious beliefs object to producing food using genetic engineering because of objections to tampering with the genetic makeup of life forms and the rapid introduction and proliferation of genetically engineered organisms and, therefore, need food to be labeled as genetically engineered in order to conform to religious beliefs and comply with dietary restrictions.”

11. For the reasons set forth below, based upon my training and experience, in my opinion, to a reasonable degree of professional certainty in the fields of philosophy, religion and ethics, the State of Vermont has a substantial interest in providing religious adherents who practice their religion on a day to day basis with the information necessary to make choices that further their religiously and conscientiously held moral beliefs and thereby promote a religiously diverse,

tolerant and welcoming society. It is also my opinion, to a reasonable degree of professional certainty, that the Act directly advances those substantial interests by giving religious adherents the information necessary to make choices that conform to their moral and religious beliefs about GE foods, including their beliefs around the dietary laws of their religious traditions.

Philosophical and Religious Issues Raised by GE Foods

12. The act of eating is one of the most intimate activities in which human beings engage. It is the act of absorbing into one's body the elements of the external world, taking in its pleasures and benefits, as well as its risks. Consequently, eating, not surprisingly, is imbued with profound symbolic and therefore religious significance. Food is not simply about nutrition and sustenance. For many people, how and what one eats expresses fundamentally who one is and the fundamental good to which one is committed.

13. Of course, not all adherents to religious traditions espouse precisely the same points of view on every religious tenet. The views of lay adherents can differ from those of the scholarly or recognized interpreters of a religious tradition, who often differ among themselves, and not all lay adherents share a precisely defined view of their religious obligations. Yet, each of these belief systems may be a legitimate expression of a religious world view and is entitled to respect and accommodation.

14. Therefore, as part of the published research conducted for the Network of Centres of Excellence Project on religious attitudes towards GE foods, the Project brought together a team of scholars from the major religious traditions in North America to reflect upon the implications of GE foods for the dietary prohibitions and rules that are critical to the practice of the religion. The traditions represented included Judaism, Islam, Hinduism, Buddhism, Chinese Traditional Religion, Indigenous Religion, and Christianity. These scholars were asked to review the

question from the point of view of the traditional theological/philosophical understandings of the food taboos within the religion, and to reflect upon the opinions expressed by lay practitioners of the religion in focus groups facilitated by the research team. While the scholars, predictably, found disagreement and uncertainty on the question of GE food among their peers (the technology is new, and the scholarly understanding of it is still in formation), the opinions expressed within the lay focus groups were far less nuanced and exhibited high levels of concern that GE foods constituted a threat to the practice of their religion. These focus groups are not assumed to provide representative samples of religious communities, and do not provide a scientifically reliable picture of the attitudes of all adherents to a religious tradition. Rather, they call attention to the way these actual adherents do in fact view an issue in light of their commitments to a religious tradition. This group research focused on the traditions as a lived practice and it consequently provides reliable guidance on how many religious adherents in fact exercise their deeply held values around food production and diet in the marketplace on an everyday basis. When assessing the need for regulatory action, it is the real belief and practice of individuals and groups that is of concern, not primarily the idealized or theoretical interpretation of the religion by theologians and scholars.

15. Our research with the religious groups and scholars found a strongly shared view (if not a consensus) among them all that genetically engineered foods pose ethical challenges within their value frameworks of such gravity that practitioners should be able to exercise informed choice in the marketplace about the purchase of these products. The most common area of agreement among them (though not a consensus) was that there should be a system of labeling of these products that permits this informed choice.

16. The ethical concerns expressed by the religious groups we studied were of several different types. Most of these were expressed by some members within all of the focus groups, though not by all members. They can be summarized as follows:

- a. The concern that there is something about the technology of genetic engineering itself which is problematic from their religious/ethical point of view. This concern was expressed in different terms by different adherents. For some the technology itself is seen as violating basic natural processes, insofar as it forces the exchange of genetic material among species that could not occur otherwise in nature. In this sense it is viewed as “unnatural.” In certain theistic religious traditions this “unnaturalness” may be viewed as a violation of God’s creation or a form of prideful “playing God.” However expressed, it leads to the conclusion that one ought not to support or participate in the technology, and that the only way to act in accord with this moral imperative is to have the information about which foods are the product of the unacceptable technology.
- b. The concern that food biotechnology represents a significant advancement in the industrialization and corporatization of agriculture, with a resulting erosion in the nutritional quality of food, greater centralization of power and wealth that works against traditional farming communities and small farmers, and the increased burden upon the natural environment and the welfare of farm animals. This poses the question whether the cultivation and use of GE foods creates injustice and inequity, contrary to religious principles that demand action to reduce suffering in the world and protect the environment. This concern was expressed in most of the religious groups in our research, but it was the central concern in the Buddhist



group, and also for the Buddhist scholar on our research team. While vegetarianism is a critical part of the Mahayana Buddhist tradition (especially in China), the central tenet in all Buddhist traditions is the avoidance of intentional infliction of suffering of all creatures. It is thus important to know how one's food is produced, and the absence of labeling on GE products was seen by many in this group as "violating the right of choice needed for one's Buddhist practice." This concern was paramount to Mennonite Christians as well.

- c. The concern that genetically engineered foods may contain transgenes from animals or plants prohibited by the dietary rules of their religious culture. Indeed, most of the major religions in North America have some prohibitions on the use of certain animals or plants in their diet or certain norms governing the cultivation or preparation of food. The focus groups were asked specifically to consider both existing and potential examples of transgenes in food products. For Christian Seventh Day Adventists, Jews or Muslims who adhere to the dietary rules of their religion, the use, for example, of a pig gene to enhance a tomato would be a form of contamination, as the consumption of pork is prohibited in these religious cultures. Similarly, because lobster is prohibited in the Jewish and Muslim religions, some adherents to Judaism and Islam would object to splicing a lobster gene into a vegetable. The insertion of the gene from an Arctic Char that confers resistance to extreme cold in the Char into a vegetable to make it more resistant to frost is a serious problem for those whose religious dietary taboos include the Arctic Char (e.g., Judaism). Scientists and scholars who view DNA constructs and genes in a materialistic and evolutionary perspective generally find the idea

that the transgenic vegetable contains the “pigness” or “lobsterness” of the organism from the gene was taken as completely implausible. Apart from its function in the donor organism itself, it represents nothing of that organism. The lay religious and secular ethical adherents to the dietary restriction, however, tend to view the matter very differently. They see the transgene as transferring a characteristic of the pig or the lobster to the vegetable on their plate. It is not the naïve view that the vegetable thereby becomes the prohibited pig or lobster, but rather that the vegetable now contains elements of the donor pig or lobster. This is often expressed in terms of “contamination” or “impurity” – moral terms that were invoked in most of the religious groups we studied. This concept of contamination is of particular concern in those religious cultures where certain foods take on powerful symbolic meanings, which raise them to the level of the sacred. For example, in the Hindu religion food is of central importance in religious rituals where it is classified as pure or impure. Impure food can be eaten most days, but is prohibited on certain holy days. For many Hindus, when an animal gene has been introduced into a vegetable or fruit, the resulting food product can be rendered impure, and thus should not be consumed on holy days. Indeed, the concept of “contamination” may be the best way to understand how the lay people in many of the religious focus groups viewed the problem of transgenes from prohibited food sources in otherwise acceptable foods.

17. The strong objections to GE foods stated by participants in the focus groups articulated their concerns not simply as a consumer preference. Rather they articulated their concerns as deeply rooted religiously and conscientiously held moral beliefs that are fundamental life

commitments and essential to an individual's self-identity, just as commitment to the dietary rules of the religion are an essential expression of what it is to be, say, a Jew or Muslim, or a Christian Seventh Day Adventist. They are a necessary part of the practice of the religion. As such, these beliefs and practices have a standing beyond mere preference. In pluralistic democratic societies dedicated to religious liberty and freedom of conscience, these attitudes rise to the level of rights, and demand respect, tolerance and accommodation not given to mere preferences. The protection of religious liberty and freedom of conscience is a crucial obligation of governments dedicated to these principles. Governments have legitimate and substantial interests in accommodating religious practices and creating tolerant religious environments.

18. Act 120 directly advances the Vermont Legislature's interests in protecting and accommodating religious liberty and freedom of conscience and in creating a religiously tolerant community. The Vermont Legislature has not banned GE foods outright but has reached a balance that informs adherents about GE foods through labeling. This permits adherents to exercise their religious beliefs by abstaining from foods that are prohibited from certain religious and ethical points of view. It also allows religious adherents the ability to exercise their power in the marketplace and support corporations and products that respect and support their religious and moral viewpoints.

19. I have not studied the extent to which Vermont residents in particular hold religion-based objections to GE foods. I am aware, however, that the Legislature was informed that there are in fact Vermont residents who have such religious objections to GE foods. I am also aware, based upon my studies and research, that people with these religious concerns travel from one jurisdiction to another and change residences throughout their lifetimes. Act 120 is a reasonable

accommodation not only of religious adherents currently residing in Vermont but also those who may travel to Vermont or come to reside there in the future.

I swear under penalty of perjury that the foregoing statements are true and correct to the best of my knowledge.

*/s/ Conrad Brunk*

Dated: November 14, 2014