

# Hungry Corporations: Transnational Biotech Companies Colonise the Food Chain

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## Chapter 3:

### Image Control: Manipulation and Public Relations

*The PR industry is so huge because of corporations. Most every issue in the news today – global warming, globalisation, genetically modified foods, tobacco legislation – affects corporations who stand to gain or lose heaps of money, depending on public reaction. Therefore, the ‘management’ of public reaction is crucial....*

*With so much cash riding on public opinion, industry has always viewed public relations as a valuable, even necessary investment. Why else would corporations throw billions of dollars a year at the PR industry?*

Michael Manekin<sup>1</sup>

The use of public relations (PR) has become so familiar that we take it as much for granted as the existence of the corporations which employ it. The term ‘public relations’ was invented by Edward Bernays in the early twentieth century. A nephew of Sigmund Freud, he was born in 1891 and came to the US as an immigrant. After working with the US Committee on Public Information (CPI) – ‘the vast American propaganda apparatus mobilized in 1917 to package, advertise and sell the [First World] war as one that would “Make the World Safe for Democracy”’, he came to the aid of the corporations after the war as part of the effort to help ‘shift America from a needs to a desires culture’.<sup>2</sup>

Bernays published *Crystallizing Public Opinion* in 1923 and *Propaganda* in 1928. In 1947 he wrote *The Engineering of Consent*, a title which describes in a single phrase what public relations aims to achieve. His early campaigns included the promotion of cigarette smoking among women and softening up public opinion for further US government intervention in Latin America by projecting Guatemala’s struggles against the United Fruit Company in the 1950s as dominated by Communists.

Public relations is meant to be an invisible means of securing the consent of the ‘masses’ in a modern democracy, where, although people are not actually consulted over most of the major issues, their mass opposition can make it impossible to implement what government or business wants, whether it is war or new technologies. As Stuart Ewen says,

Bernays was also a far-sighted architect of modern propaganda techniques who, dramatically, from the early 1920s onward, helped to consolidate a fateful marriage between theories of mass psychology and schemes of corporate and political persuasion.<sup>3</sup>

#### Table of Content

3.1	Growth and consolidation of the public relations industry _____	2
3.2	Cleaning the corporate image _____	2
3.3	Corporate mind control _____	5
3.4	Helping hands _____	10

### 3.1 Growth and consolidation of the public relations industry

*Does it matter that four of the world's largest public relations firms are now owned by the same corporation? WPP is a potential powerhouse, a huge propaganda machine, with the reach and coordinated skills in people manipulation that might allow it to rule the hearts and minds of the entire global population.*

Sharon Beder and Richard Gosden, 2001<sup>4</sup>

Corporate public relations has become a growth industry in its own right. Like those they serve, the PR companies are swallowing each other up so fast, it is hard to keep up. For example, Wire and Plastic Products (WPP), a UK company which started out making wire shopping baskets and filing trays, has now become one of the three major global PR firms (the others are Omnicom and Interpublic), owning 80 companies. In 1987, it acquired J. Walter Thompson Group, which included Hill and Knowlton. In 2000 it acquired Young and Rubicam, which included Burson–Marsteller (see below). Now known simply as WPP, it enjoyed sales of \$4,456.7 million and a net income of \$365.9 million in 2000, and followed this with sales of \$5,856 million and a net income of \$395 million in 2001 – growth leaps of 31.4 and 7.9 per cent respectively.<sup>5</sup>

Whatever corporations are involved in, they all increasingly use PR companies that combine glossy presentation with careful attention to language, often appropriated from the civil society organisations and NGOs that oppose corporate activities. Words like ‘dialogue’, ‘transparency’, ‘sharing’, ‘respect’ and ‘democracy’ are all freely used. Corporations rely heavily on public relations companies to advise them on strategies to get their message across to governments, public institutions and the public in general. The tactics used by the biotech corporations include:

- engaging key scientists or respected figures who appear independent (former President Carter, for example) to speak in favour of biotechnology;
- commissioning new research to promote the benefits of biotechnology as a whole or to denigrate alternatives such as organic food;
- lobbying governments and international institutions both directly and through trade associations;
- launching personal attacks to discredit the opposition, including scientists, NGO representatives and environmentalists;
- attracting known environmentalists to work for them;

- creating civil society organisations – such as the [US] Citizens Network for Foreign Affairs (CNFA) – to promote their point of view (see Chapter 5);
- avoiding the controversial areas of the debate and trying to forestall awkward questions (as when Burson–Marsteller leaked advice to the industry in 1997 – see below);
- using PR as education;
- seeking to transform the image of industry through major new campaigns such as converting themselves into ‘life science’ companies (see Chapter 4);
- using grassroots tactics (see below);
- setting up ‘dialogues’ with NGOs, the public, government and others.

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### 3.2 Cleaning the corporate image

The brochures, websites and company pronouncements of the big biotech corporations give the impression that they are sincerely concerned for the planet and the welfare of all.

*Dow Agrosciences*, for example, used a Native American proverb for its website in 2000, stating: ‘We do not inherit the land from our ancestors; we borrow it from our children.’

The *DuPont* vision statement begins, ‘We, the people of DuPont, dedicate ourselves daily to the work of improving life on our planet’, and ends: ‘Our principles are sacred. We will respect nature and living things, work safely, be gracious to one another and our partners, and each day we will leave for home with consciences clear and spirits soaring.’<sup>6</sup>

Neatly, its CEO assures its investors that they can save the planet, its people *and* make lots of money:

However, there are still enormous challenges. Extrapolation of current trends paints a picture of an unsustainable world: an increasing gap between the rich and the poor; billions of people who do not have access to clean water, proper sanitation, adequate food, shelter, and health care; and the steady decline in key global ecosystems.

As a company that is owned by thousands of investors, our challenge is to address these issues in a way that makes business sense. We define this direction as sustainable growth – the creation of shareholder and societal value while decreasing

our environmental footprint along the value chains in which we operate.<sup>7</sup>

In its vision, *Syngenta Biotechnology* modestly proclaims a 'New Agricultural Renaissance' and says:

WE are the generation of individuals committed to applied biology with potent new technologies and knowledge;

WE have the ability to see opportunities to create a high-value agriculture with expanded benefits for people and the planet.<sup>8</sup>

### **Skeletons in the cupboard: challenges for the PR machine**

Not surprisingly, the websites of the major agrochemical corporations are silent as regards their less laudable activities. Yet it is instructive to look at the past and gain some perspective on the history of some of the leading biotech corporations. For instance, Monsanto's history includes the production of DDT (an indiscriminate insecticide, also produced by other companies such as Ciba-Geigy and banned in 1976 in the North, but still manufactured in the North and available in many Southern countries) and the development of other extremely hazardous and toxic pesticides, defoliants and chemicals such as PCBs and Agent Orange (see page 49), which have caused untold human suffering and environmental damage in the North as well as in the South. Some of the many other examples are reviewed below.

#### ***Risen from the Third Reich***

IG Farben's profits were built on forced slave labour under the Nazis during the 1940s. Members of IG Farben included Hoechst, BASF, Bayer and Agfa. 'By 1944, more than 83,000 forced labourers and death camp inmates were put to work in the IG Farben camp at Auschwitz, where more than 120,000 people perished.'<sup>9</sup> IG Farben subsidiary Degesch also manufactured the chemical Zyklon B, used for genocide in the gas chambers at extermination camps. Surviving slave workers have been suing German companies for compensation, with no satisfactory outcome so far.<sup>10, 11</sup>

Telford Taylor, US Chief Prosecutor at the 1947 Nuremberg War Tribunal against the managers of Bayer, BASF and Hoechst (IG Farben) stated:

These companies, not the lunatic Nazi fanatics, are the main war criminals. If the guilt of these criminals is not brought to daylight and if they are not punished, they will pose a much greater threat to the future peace of the world than Hitler if he were still alive.<sup>12</sup>

This history shows that the dangers of allowing corporations to become too powerful goes far beyond

mere matters of competition and the domination of markets.

#### ***The heirs of Union Carbide***

In December 1984 the Union Carbide Corporation's pesticide plant in Bhopal, India was the site of the world's worst industrial accident. Thousands of people died, and an estimated 140,000 survivors still suffer from a range of diseases linked to exposure to the gas methyl isocyanate that leaked from the site, spreading over a 25-square-mile area. Survivors are still fighting for fair compensation.

In 1986 Rhone-Poulenc (now Aventis), under the chairmanship of Jean-René Fourtou, picked up the agrochemical division of Union Carbide for \$575 million. Union Carbide was anxious to sell in order to protect itself from a worldwide boycott following the Bhopal disaster. Over the next 5–10 years Union Carbide shed more of its divisions and finally announced in 1999 that it was to merge with Dow Chemical Company. In February 2001 Union Carbide became a wholly owned subsidiary of Dow, whilst its former agrochemical plants changed hands from Aventis to Bayer in 2002.

The Chemical Manufacturers Association [USA] created its much-touted Responsible Care Program in the aftermath of the 'public relations problem' caused by Union Carbide's gas disaster in Bhopal. Ironically, a representative from Union Carbide was among the first to chair Responsible Care.<sup>13</sup>

#### ***Dow Chemical***

This US company gained notoriety in the 1960s for the manufacture of napalm, a jellied gasoline which stuck to its victims and caused frightful burns. It was also one of the makers of the herbicide known as Agent Orange, used as a defoliant during the war in Vietnam. The watchdog INFACT reported in 1999:

Dow's own history includes covering up information about dioxin contamination in Agent Orange ... as well as problems related to its consumer products including silicone breast implants, and the pesticide DBCP which Dow continued to sell abroad even after it was banned in the US because it causes sterility. Dow has made efforts to clean up its image with advertising campaigns like its recent 'What Good Thinking Can Do'.<sup>14</sup>

#### ***The vitamin cartel***

In 1999, companies including Rhone-Poulenc (now Aventis), Roche and BASF were all exposed over a major price-fixing controversy in the vitamin business; they had formed a cartel that controlled the world market for nine years. Vitamins are widely used by the food processing and animal feed industries, and their

inflated prices are estimated to have affected US commerce by \$5–6 billion and global commerce by over \$20 billion.

The conspiracy appears to have begun in 1989 when executives at Roche AG and BASF began holding talks about price fixing. They decided to carve up the vitamin market and to recruit other major vitamin makers to come in on the arrangement, like Rhone-Poulenc of France and Takeda Chemical Industries from Japan. Later, yet further vitamin producers joined the cartel. Nearly all world vitamin producers now face massive fines.<sup>15</sup>

Roche had to pay a record fine of US\$500 million and one of its directors went to jail in the US; BASF paid US\$225 million; Rhone-Poulenc escaped conviction and hundreds of millions of dollars in fines by testifying against the other two. Record fines were also set by the European Union in September 2001 for eight distinct price-fixing cartels in vitamin products (Roche paid 462 million euros; BASF E296 million; and Rhone-Poulenc only E5 million).

### ***Sandoz and Ciba–Geigy – the past of Novartis***

Both Novartis's merger partners Sandoz and Ciba–Geigy are remembered for past scandals. So are Ciba and Geigy. Although dwarfed by the mega-mergers of the 1990s, the merger of Ciba and Geigy in 1970 was extraordinary for its time. With the merger, Ciba–Geigy became the world's third-largest pharmaceutical manufacturer, the second-largest producer of pesticides, and the largest producer of chemical dyes.

- **SMON tragedy in Japan:** The merger also came at the time of one of the company's worst scandals, the SMON tragedy in Japan, brought about by Ciba's drug clioquinol. Holly Knaus called it 'one of history's most horrifying cases of corporate negligence'.<sup>16</sup> Ciba's clioquinol had entered the Japanese market in 1953 for all forms of dysentery and all types of abdominal pain. Whilst increasing numbers fell ill with severe optic disorders and paralysis in the feet and legs, the syndrome was only identified as a 'disease' called SMON (subacute-myelo-optic neuropathy) in 1965. Not until 1970, with 10,000 Japanese affected by devastating symptoms, could Japanese researchers link their suffering to the use of the popular clioquinol. Ciba was the largest producer worldwide of clioquinol and oxyquinoline-derived drugs. Though the company immediately dismissed the links to oxyquinoline, it was shown later that Ciba had known about problems since 1953 and had been in possession of proof since at least 1962.<sup>17</sup> Over 5,000 lawsuits were filed in Japan against Ciba–Geigy, resulting in a pay-out of over \$490 million to Japanese SMON victims by 1981. It was not until

1985 that Ciba–Geigy finally took the drug off the global market. In an apology to the victims of its drug the company stated:

We who manufactured and sold clioquinol drugs deeply sympathise with the plaintiffs and their families in their continuing unbelievable agony; there are no words to adequately express our sorrow. In view of the fact that medical products manufactured and sold by us have been responsible for the tragedy, we extend our apologies, frankly and without reservation, to the plaintiffs and their families.<sup>18</sup>

The SMON incident put Ciba–Geigy in the spotlight and led to the discovery of other cases of negligence concerning the sale of its drugs.

- **Poisoning the Rhine:** Sandoz was responsible for a notorious chemical disaster that occurred in November 1986 as a result of a fire at its production and warehouse facility in Switzerland. Eight tons of mercury and approximately 30 tons of extremely hazardous organophosphate pesticides spilled into the Rhine River and killed fish, wildlife and plants for hundreds of miles. According to Greenpeace researchers Jed Greer and Kenny Bruno, following the spill, Sandoz 'cleaned up' its operations by moving 60 per cent of its organophosphate production to Resende, Brazil. In 1989, shortly after another ton of Sandoz disulfoton nearly spilled into the Rhine, Sandoz moved the rest of its organophosphate production to Brazil.<sup>19</sup>
- It also emerged in November 1986 that Ciba–Geigy, then neighbour to Sandoz, had played its part in the toxic pollution of the Rhine. A day before the Sandoz fire an accidental leak at Ciba–Geigy sent 88 gallons of the weedkiller Atrazin into the river. A spokesman for Ciba–Geigy said the leak happened when staff accidentally released chemicals into the river before they had been treated.
- **Biotech companies versus nature – the case of multiple resistance:** GM contamination and herbicide resistant canola (oilseed rape) volunteers (plants that germinate from seeds of previous crops in succeeding years) have become a serious problem in Canada. Resistance to more than one herbicide is caused by successive cross-pollination of canola plants engineered to be resistant to different herbicides. At present 3 classes of herbicide tolerant oilseed rape are grown in Canada, each tolerant to a different herbicide (glyphosate, glufosinate and imidazolinone (non GM)).

In 1999 and 2000 various reports showed that crosses amongst these oilseed rape cultivars have resulted in the unintended creation of plants with multiple resistance to either two or three classes of herbicides. Such 'accidental gene stacking' is a serious development that could easily have been

foreseen by the companies. Canadian farmers are now saying that any advantages that GM technology might have conferred are already being outweighed by the problems caused, and it is getting worse.<sup>20</sup>

English Nature, which is the UK Government's chief conservation agency, has expressed concern over such resistant crops, saying that, if GM crops are introduced in the UK, farmers might turn to old herbicides which are highly toxic, such as Paraquat and 2,4-D, in order to rid themselves of such volunteer crops or superweeds.<sup>21</sup>

### **Sidestepping the consequences**

These stories highlight recurring patterns in corporate activity. However, corporations and their PR companies rely on our short memories and their sales tactics to ride any public challenge about their pasts. They are free to constantly reinvent their images. Moreover, mergers, divestments and changes of name make companies difficult to track. They can also change their objects freely without returning to the public to ask for permission. They can set up subsidiaries without assets to take the blame for disasters, leaving the parent company untouched. This is often called the 'corporate veil' (see Chapter 2). These tactics make it hard for people to hold corporations to account for their actions.

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## **3.3 Corporate mind control**

When asked about the links between US domestic and foreign policies and the sophisticated PR machinery, John Stauber stated:

*They're really one and the same, because the push for corporate globalization – the push to lower and destroy regulatory standards in other countries that do care about protecting human health and safety – is based here in the United States. And the biggest PR firms that work for these corporations are very much active in trying to impose the US definition of globalization on the rest of the world, including definitions that say, 'Well, yeah, there's no real need for countries to provide universal health care; there's no need to safety-test genetically engineered food.'*

John Stauber, co-author of *Trust Us, We're Experts – How Industry Manipulates Science and Gambles With Your Future*<sup>22</sup>

## **Corporate PR campaigns**

Corporations use a number of different methods to promote or disguise their public relations campaigns. One is to package them as education. Others include engaging in stakeholder dialogue and using scientists – like the members of Cropgen UK, a lobby group 'funded by but independent from the biotech industry' – as the main mouthpieces for biotech PR. It also helps their cause if they can ensure that news of 'scientific breakthroughs' comes from the mouths of scientists, charities and research institutions rather than from industry itself. Deploying the grassroots can also help the cause – and if none of these things are effective, then apologies may be used.

### **PR as education**

In September 1999 Novartis and others launched a biotech PR campaign aimed at students and teachers. Novartis gave the (then Washington-based)<sup>23</sup> Biotechnology Institute \$150,000 for the production and distribution of *Your World: Biotechnology & You*, a student magazine. Amongst the many other 'founding sponsors' of the Institute, all of which put funds into *Your World*, there were well-known names which included: BIO (Biotechnology Industry Organisation – see below), Amgen, Aventis, Biogen, Council for Biotechnology Information (see below), Genzyme, Merck, Monsanto Fund, Novartis Foundation, Pennsylvania Biotechnology Association, Pfizer, Scottish Enterprise and the US departments of Commerce and Energy.<sup>24</sup>

Our vision is to engage, excite and educate as many people as possible, particularly young people, about biotechnology and its immense potential for solving human health and environmental problems.<sup>25</sup>

According to its president Paul Hanle, the Biotechnology Institute was specifically established to be:

- The authoritative national source of reliable, scientifically sound information about biotechnology for teachers and students;
- A leading independent resource for opinion leaders and the general public.<sup>26</sup>

Consequently, the goal was to achieve a 'measurable increase in appreciation of biotechnology among young people and general audiences'. Each issue claimed to provide an 'in-depth exploration of a particular biotechnology topic by looking at the science and its practical applications'. Subscribers received 30 copies of the glossy magazine, a classroom poster and 16-page Teacher's Guide. According to Jeff Davidson, the Institute's Director of Bioscience Education,

*Your World* gives teachers access to up-to-date, real-life examples of biotechnology at work,

information that simply isn't available from most textbooks currently in use. Equally important, we present the material in a fun-to-read, magazine-style format, which students find more interesting than most traditional classroom material.<sup>27</sup>

Whilst over 5,000 schools with 7<sup>th</sup>–12<sup>th</sup> grade students in the US were being supplied with copies of the biannual magazine, the intention was to achieve global distribution. Scotland became one of the 'worldwide' targets, with its schools receiving tens of thousands of copies. On 15 April 2001 the Scottish *Sunday Herald* reported:

Up to 20,000 copies of seven editions of *Your World* are this month being sent to 600 schools and colleges throughout Scotland as a 'teacher's resource for biotechnology education'. In promoting the magazine, neither Scottish Enterprise nor HM Inspectorate of Education mentioned the fact that it has been sponsored by multinational GM companies.

Jeff Davidson of the Biotechnology Institute was quick to point out that *Your World*, 'though sponsored by GM companies, was actually produced by academics and science writers'. One of these was Professor Prakash (see pp. 70–2) who was scientific adviser and editor to the *Your World* issue (Volume 10, Issue No. 1 – 'The Gene Revolution in Food') addressing genetically modified food crops.

### **Other past examples of 'educational' PR campaigns**

- Monsanto funded the 'Beautiful Science' exhibit at Walt Disney World, in February 1999.
- Novartis Seeds donated \$25,000 towards the establishment of a Biotechnology Education Center at Iowa State University in February 1999.<sup>28</sup>
- In September 1999 Novartis contributed \$300,000 towards an exhibit at the Museum of Science and Industry in Chicago entitled 'Farm to Plate'. Approximately two million people toured the exhibit annually, including 400,000 children on school tours. Ed Shonsey, President of Novartis Seeds, stated, 'In order to realise the potential [of biotechnology], we must help American consumers understand the immense possibilities biotechnology places within our grasp.'<sup>29</sup>

### **Stakeholder dialogue**

A number of companies have invited key stakeholders such as NGOs to participate in dialogue with them, often stating that this will help them (the companies) to understand the issues better. Such dialogue may not only circumvent open democratic processes, public debate and participation, but may also split campaign alliances and isolate the 'radicals' who can then be

portrayed as hardliners, uninterested in resolving the issues. It is also a useful method of finding out what current concerns are and what language is being used by the opposition, in order to massage the concerns and appropriate the language.

### **Masquerading as grassroots**

Industry has long used what John Stauber of PR Watch calls 'phony corporate grassroots organizing':

Unfortunately, most of what passes for citizen activism these days is actually paid for by corporate interests like the tobacco industry using Burson–Marsteller to create the National Smokers Alliance. They spent easily over 100 million dollars creating a 3 million member strong organization – all in a computer database – all able to be contacted by mail, by phone, even local organizers. And when the tobacco industry needed to dump phone calls and letters into Congress or into the local [legislature] or into cities to oppose restrictions on smoking, there was the National Smokers Alliance.<sup>30</sup>

As the US public became aware that GMOs were in their foods, the biotechnology industry in the US was encouraging people, such as groups of church members, union workers and the elderly, to speak in favour of GM food at public hearings held by the Food and Drug Administration (FDA). According to the *New York Times*,<sup>31</sup> in one demonstration, Monsanto paid for 100 members of a Baptist church to attend a rally in Washington, waving signs that said 'Biotech saves children's lives' and 'Biotech equals jobs'. They reportedly also paid for their lunch. A spokesperson for Monsanto said that the company had authorised the PR company Burson–Marsteller to reach out to people supporting biotechnology.

Before another FDA hearing in Chicago in November 1999, Burson–Marsteller hired Jerry Morrison, a long-time labour organiser. Morrison said that he had spoken to eight groups, asking them to speak at the Chicago hearing. Morrison readily admitted that Burson–Marsteller hired him to meet with farmers, unions, consumer and 'faith-based' groups to counter what he describes as 'environmentalist public hysteria' about biotech foods.<sup>32</sup> (See also Direct Impact Company, p. 57.)

### **The fake parade**

At the World Summit for Sustainable Development in Johannesburg, in August 2002, a march by poor farmers drew worldwide press attention. These farmers challenged opponents of genetic engineering and accused them of perpetuating poverty. However, careful examination revealed that all was not as it seemed. Behind the marchers and their 'bullshit' awards for the likes of Vandana Shiva was a web of

interconnected groups and individuals. The Sustainable Development Network, which organised the march, is based in London and directed by Julian Morris, who is also linked with the Institute of Economic Affairs (UK). Its network includes the AgBioworld Foundation, linked to Agbioworld (see Professor Prakash, pp. 70–2), and the European Science and Environment Forum (see pp. 64–6), Consumer Alert, the Free Market Foundation (Johannesburg), the Free Trade Institute (Lima, Peru), and a number of other organisations based in the South.<sup>33</sup> Most of these echo similar aims: strict limits to government, and individual and economic freedom. After the Summit, Val Giddings, Vice-President for Food and Agriculture of the Biotechnology Industry Organisation (BIO), wrote for the November issue of *Nature Biotechnology* (2002) about how the farmers were speaking for themselves at last, against those who profess to be their advocates.<sup>34</sup>

## Apologies and pledges

Finding that the public would not simply accept the technology gratefully appears to have been a considerable shock to the biotech corporations, especially Monsanto. In October 1999 Monsanto's chief executive Robert Shapiro acknowledged that his company's aggressive biotech campaign probably 'irritated and antagonised' more people than it persuaded and was perceived as 'condescension or indeed arrogance'.<sup>35</sup>

This was followed by the Monsanto pledge, first issued in 1990 and renewed to cover biotechnology in November 2000. It reaffirms that it will not pursue Terminator technologies. It commits itself to dialogue and transparency, and promises to respect other people's concerns by not using genes from animals or humans in food or feed. It also promises to share Monsanto research with universities, supports a requirement for firms to notify US regulators about plans to market a biotech product, seek global standards on biotech seed, grain and food products, and sell only grain products approved as human food and livestock feed. And it will only launch products if they have regulatory approval in the US, Europe and Japan.

Similar sentiments come from William F. Kirk, president of DuPont's agricultural division:

I think we totally underestimated the effect at the consumer level. Product acceptance went so fast with the farmers that maybe the consumer side didn't get worked on well enough for long enough. There is more work to be done around communicating and talking about benefits and being able to understand and listen for concerns.<sup>36</sup>

## Burson-Marsteller: 'crisis management' company

*I remember one conversation with a PR lobbyist for Monsanto, and I basically asked him how he did it. And he said, 'Well look, it's a great job, it pays me lots of money, I love my wife and my kids, and when I go home I just turn on the TV and pour a stiff drink and leave it all behind me.' At work here is the Nuremberg principle: 'If I don't do this, then somebody else will.' This view is the worst sort of cynicism because it allows one to rationalise any sort of behaviour, to the point of what was done in Nazi Germany.*

John Stauber<sup>37</sup>

Burson-Marsteller – owned by WPP (see p. 46) – is a good example of the kind of company that the biotech corporations use to improve their image. It is an international PR company that specialises in 'altering public perception' and 'crisis management' for corporations, governments and military dictators in need. The last category has included the governments of General Jorge Rafael Videla in Argentina, Suharto in Indonesia and Abacha in Nigeria.<sup>38</sup> Burson-Marsteller is an expert in working on and changing public perception. Its public relations portfolio includes some of the worst ecological disasters such as the *Exxon Valdez* oil spill, the BSE crisis and the Union Carbide chemical leak in Bhopal, India.

Burson-Marsteller also put in a tender to advise EuropaBio, the pan-European biotechnology industry trade association. A report leaked in 1997 illustrates some of its advice.<sup>39</sup> For example, the biotechnology industry is advised to 'stay off the killing fields' – that is, not to engage in debate on environmental issues and health. They should be aware that adversarial voices will try and lure them into those areas as 'they enjoy high public credibility and because they know that direct industry rebuttals usually feed the story instead of killing it'. EuropaBio is instructed to turn itself into the journalist's best and most reliable continuing source of biotechnology/ bioindustries inspiration and information – the first-stop help-desk, not for industry propaganda, but for practical, editor-pleasing, deadline-beating connections to interesting stories and personalities, even adversarial ones, relevant to their readerships.

## Direct Impact company

Direct Impact became a subsidiary of Burson-Marsteller in 1999. According to the *Washington Post*:

Burson-Marsteller, the public relations firm that perfected the art of astroturf lobbying, has taken over Direct Impact, another PR firm known for its somewhat disingenuous 'grassroots' efforts. Direct Impact has considered themselves the non-traditional 'third leg' of the 'lobbying stool.' The

other two legs are ‘traditional public relations and traditional lobbying.’ Because Direct Impact do not lobby Congress directly, they are not required to file disclosure reports, making it impossible to find out how much money they spend on their ‘grassroots’ campaigns.<sup>40</sup>

Direct Impact specialised in ‘grassroots PR’, creating grassroots support for corporate interests. In the early 1990s, a dairy organisation hired Direct Impact to recruit New York residents to speak in favour of Monsanto’s artificial GM growth hormone (rBST or rGBH) for milk cows, which caused one of the first battles over products created by genetic engineering.

Direct Impact’s list of customers in need of grassroots PR includes

the American Petroleum Institute, a member of the Executive Committee of the Air Quality Standards Coalition (the lead organisation fighting the EPA’s stringent air pollution standards), and a supporter of several anti-global warming treaty organisations, including the Global Climate Information Project, the Alliance for a Responsible Atmospheric Policy, the Global Climate Coalition and the Coalition for Vehicle Choice.<sup>41</sup>

Burson–Marsteller itself houses the Foundation for Clean Air Progress, another anti-environmental corporate front group.

## Industry lobby groups

*Bios* is the ancient Greek word for ‘life’ and ‘biology’ refers to the science of life. Industry has chosen to award this positive meaning to the Biotechnology Industry Organisation (BIO). It was first called into life in the US in 1993 as a merger of the Industrial Biotechnology Association and the Association of Biotechnology Companies. By 2002 it held a membership of ‘more than 1,000 companies, academic institutions and public biotech centres in all 50 US states and 33 other nations’. Its board (2001–2) included DuPont, Monsanto, Novartis, Bayer, Dow AgroScience, Syngenta and many of the leading pharmaceutical and genomics companies. BIO sees itself as the voice of all biotech interests, including genetic modification of crops, food and pharmaceuticals.

According to its website it is pursuing a ‘three pronged mission’:

- ‘Advocate the industry’s positions to elected officials and regulators [including international negotiations, trade talks, etcetera].
- Inform national and international media about the industry’s progress, contributions to quality of life, goals and positions.

- Provide business development services to member companies, such as investor and partnering meetings.<sup>42</sup>

Other organisations of the same type as BIO have appeared over the last decade in different parts of the world to ensure that biotechnology industry interests are pursued at the highest level of government, at international negotiations and in global trade. The most visible work is the organisation of industry conferences and BIO conventions. These widely publicised and expensive events feature company and salespeople, exhibitions, press conferences, industry workshops, lectures focusing on the benefits and progress of biotech, free banquets and gifts for journalists, and more. In the US, for example, BIO 2001 (San Diego) hosted 13,700 participants from 44 different nations, with 630 press registrations. The annual BIO conferences have been attracting increasing attention from critics. Counter-conferences, several entitled ‘Biodevastation’, have attracted thousands of concerned citizens to rally and march against what they believe BIO stands for.

Australia established its BIO equivalent, the Australian Biotechnology Association, in 1995; it was renamed AusBiotech in 2001. EuropaBio, founded in 1996 and based in Brussels, has proved to be a cunning and powerful lobbyist at the European Parliament and the European Commission, especially in the debate over the Patent Directive, on which large sums were spent. AfricaBio, established in 2000 in South Africa, is the only BIO organisation that focuses solely on biotech interests in food and farming. It is strategically placed to open the door of this vast continent for the GM seed industry. One of its tasks is to ensure that IPRs for ‘biotechnological inventions’ (such as genes or GM seeds) are embedded in the laws and regulations of the various African nations.

The following section gives further information on BIO organisations for those interested in industry lobby groups.

### **BIO**

BIO, founded in 1993, has its headquarters in Washington DC, perfectly placed for its lobbying tasks. BIO reports that it has successfully prosecuted its core lobbying agenda points in the 1990s. It has, for example, repeatedly ‘beaten back’ federal [governmental] price control initiatives on breakthrough drugs. It claims that its core agenda point of ‘shaping political and public reaction to the genetically modified foods that were poised to enter supermarkets’ was also successfully executed: ‘A host of genetically modified agricultural products traversed the regulatory gauntlet, including improved varieties of corn, potatoes, tomatoes and cotton.’ BIO also takes credit for the fact that ‘a variety of tax incentives were



enacted at the state and federal level to encourage biotech investment'.<sup>43</sup>

Besides lobbying, BIO promotes huge PR and media campaigns. In March 2000 it launched a six-month television advertising campaign called 'Biotechnology: a Big Word That Means Hope', based on themes of US entrepreneurship, pioneering technology and the biotech industry's R&D into medicines for heart disease, cancer, diabetes, Alzheimer's and Parkinson's diseases. Interestingly, this PR campaign bundles the pharmaceutical and agricultural applications of the technology together. Further, little distinction is being made between genuine breakthroughs and ideas that have yet to be tested.

### **EuropaBio**

EuropaBio, the European Association for Bioindustries, was founded in 1996 as the 'voice of the European biotech industry'.<sup>44</sup> With its headquarters in Brussels, its major purpose is to influence legislation relevant to the biotech industry by lobbying the relevant institutions. 'EuropaBio's primary focus is the European Union [the Parliament, the Commission, the Council of Ministers and the presidency] but because of the global character of the business, we also represent our members in transatlantic and worldwide fora.'<sup>45</sup> One of its aims is to create coherent European legislation for bioindustries:

Through its working groups and task forces, EuropaBio proactively contributes to the preparation of this regulatory framework, by providing constructive comments on proposed legislation or by drafting discussion documents and position papers.<sup>46</sup>

EuropaBio and its members have been remarkably successful in convincing the European Commission of the desirability of biotechnology industries in Europe and in supporting the respective industries. We have mentioned that one of its major 'battles' was around the Life Patent Directive – the EU Directive on the Protection of Biotechnological Inventions:

This Directive, which had been fiercely opposed by the European Parliament in 1995, was adopted by the same Parliament in 1998, after what had been one of the biggest and most expensive industry lobby campaigns in Brussels to date.<sup>47</sup>

According to its website, in 2003 EuropaBio had 35 corporate members operating worldwide, 21 national biotechnology associations with 1,200 small and medium-sized enterprises. The first European Biotechnology Convention (Cordia EuropaBio Convention 2003) has been announced for Vienna, 2–4 December 2003. (See also Chapter 7.)

### **AfricaBio**

AfricaBio was publicly launched in South Africa in January 2000 'to promote the enhancement of food, feed and fibre through the safe and responsible application of biotechnology'.<sup>48</sup> In contrast to other BIO organisations it focuses solely on genetic engineering in food and farming. By December 2002 it claimed a membership of 90 stakeholder organisations.

South Africa is a major entry-point into the African continent for industry. It has the infrastructure and wealth to support biotech research and is a large exporter to the region, with obvious implications for any African country seeking to remain GMO-free.

BIO offers this assessment of AfricaBio's impact on its website:

While South Africa, Zimbabwe, and Mauritius lead the way with respect to modern biotechnology, Malawi, Zambia, Namibia, and Mozambique are actively reviewing the technology and preparing a policy and biosafety platform for safe introduction and testing of GMOs.

AfricaBio aggressively pre-empted the launch of a citizen initiative for a five-year freeze (moratorium) on genetic engineering for food and farming in South Africa by issuing a press release denouncing it. Accusations included

The so-called 'freeze alliance' fails to properly identify itself other than by the acronym SAFeAGE, 'a coalition of organisations who support the 5-yr Freeze Manifesto', in a pamphlet recently distributed to the public. According to Dr [Jocelyn] Webster [Executive Director of AfricaBio], the document is fraught with hackneyed generalisations and claims inconsistent with the latest scientific evidence. (AfricaBio Media Release, 25 July 2000)

### **AusBiotech Ltd**

AusBiotech Ltd represents 685 members and describes itself as

a national body of companies and individuals dedicated to the development and prosperity of the Australian biotechnology industry. It is the main body for the Australian Biotechnology industry, and provides a 'platform' which brings together all the relevant players involved in the Australian biosciences community. Its mission is to facilitate the commercialisation of Australian bioscience in the international marketplace.<sup>49</sup>

Established in 1995 as the Australian Biotechnology Association, it changed its name to AusBiotech Ltd in 2001; it has also changed the definition of 'corporate member' to include university and government research departments as well as hospital departments,

which it invites to join alongside R&D corporations.<sup>50</sup> Maybe it is a brave step into the open, the public outing of university and governmental research departments as members of the corporate community. Whatever the intention, having institutions previously regarded as independent as members could make AusBiotech a well-cloaked advocate for profit-motivated genetic engineering solutions.

### **Other biotech industry associations**

Other national or regional biotechnology industry organisations listed on BIO's website include the All India Biotech Association (AIBA), New Delhi, India (established 5 July 1994; with more than 200 members by 2002; affiliated to BIO-USA); the Japan Bioindustry Association (established 1942; membership of 400 companies and 1,300 individuals); New Zealand Biotechnology Association; BIOTECCanada; the BioIndustry Association (BIA) in the UK (established 1989, 130 corporate and 121 associate members by 2002); Israel Biotechnology Organisation; and Foro Argentino de Biotecnología in Argentina (established 1986; 35 members).<sup>51</sup>

### **The Council for Biotechnology Information (CBI)**

This is a coalition of seven leading companies with an interest in biotechnology, plus the industry trade association, BIO. The founding members of the Council are: Aventis CropScience, BASF, Dow Chemical, DuPont, Monsanto, Novartis, Zeneca Ag Products and BIO. Associated with the Council are a range of other organisations and trade and industry groups that support genetic engineering.

The Council's stated goal is to make it easier for people to get information about biotechnology. Its latest PR campaign in the US and Canada, costing \$50 million over three to five years, includes a website ([www.whybiotech.com](http://www.whybiotech.com)), toll-free consumer number, information materials, and television and print advertising. The CBI is also a founding sponsor of the Biotechnology Institute.

Canadian secondary schools, colleges and universities got a special present in 2001. The CBI – in cooperation with Oxford University Press – sent a free copy of Alan McHughen's book *Pandora's Picnic Basket* addressed to the librarians of all these institutions. The Canada-based *Ram's Horn* newsletter reported in December 2001 that this industry practice was not going unnoticed. The husband of a high school biology teacher had sent a note in which he stated: 'I intend to pursue this practice [of industry lobby group propaganda disguised as books for libraries or educational resource 'kits' free to teachers] with the provincial deputy minister of education.'<sup>52</sup>

## **3.4 Helping Hands**

It is very helpful for the corporations and their public relations contractors to have supportive sources of opinion that appear to be completely independent. Their value is increased by their status. Think tanks have been well established in the US and the UK for many years. The media quite often fail to give the affiliations of information providers, and help to increase the illusion that they are all neutral or independent. Think tanks are now appearing in the South. There is also a wide range of scientists and opinion formers who operate as advocates for biotechnology. Many of them oppose any regulation which is seen by industry as posing a threat to the freedom to operate, such as campaigns associated with the Convention on Climate Change, to reduce CO2 emissions. Often a little investigation shows how these apparently independent spokespersons, groups and networks are linked together in an intricate web of connections. What follows is just a sample of the individuals and organisations involved.

### **Often quoted, less often named: US conservative think tanks**

Think tanks are usually recognised for their policy research, their particular approach to problem solving and, possibly, their lobby work. The background of particular think tanks, their closeness to industry or government, their sources of funding and their role in influencing the course of events through the media are less well known. Right-wing think tanks can serve the useful purpose of promoting free-market philosophy in the media.

The US national media watch group, the 'Fairness and Accuracy In Reporting' or FAIR collective<sup>53</sup> found that in 1997 conservative or right-leaning think tanks provided more than half the main US media's think tank citations for the third year running.<sup>54</sup> Think tanks of the right provided 53 per cent of citations, centrist think tanks 32 percent, while progressive or left-leaning think tanks received just 16 per cent of all citations. Five of the ten most-cited think tanks are conservative or right-leaning, including three of the top four: the Heritage Foundation, the American Enterprise Institute, and the Cato Institute. The Brookings Institute was the most cited and is defined as centrist. The top four think tanks were each cited more than a thousand times, and provided over 40 per cent of all think tank citations. Expert spokespersons quoted in the media were often not identified as representing think tanks, which also went unnamed in a majority of the citations. Nor was the fact that many of these think tanks receive significant corporate support.

By failing to politically identify representatives of think tanks, or identify the financial base of think

tanks, major media deprive their audiences of an important context for evaluating the opinions offered, implying that think tank ‘experts’ are neutral sources without any ideological predispositions.<sup>55</sup>

These think tanks also form opinions on genetic engineering in food and farming, influencing the debate and shaping its agenda. For example, the article ‘Con Game’, published to influence the Oregon State vote on labelling, was written by Jessica Melugin, a researcher at the American Enterprise Institute’s Federalism Project, and Roger Bate, Director of the International Policy Network. In the article Melugin and Bate argue that

the Food and Drug Administration – as well as all major international food and health bodies – have declared GM foods safe. For millennia technology has been employed to fight off pests, whether it’s the application of tons of sulfur on organic crops, or inserting a single gene into a crop. The battle is ongoing, and with new technologies – from sulfur to DDT to newer pesticides and now GM techniques – we have increased food safety and helped feed billions of people. GM food doesn’t deserve the stigma of mandatory labeling.<sup>56</sup>

In fact, neither the FDA nor ‘all major international food and health bodies’ have declared GM foods safe. The FDA only acknowledges that the notifying company regards the GM food as safe (see Box, p. 168, ‘GM foods: not approval – just acknowledgement’). The Cato Institute is equally in favour of biotech crops and features pro-GM articles on its website. Examples include: ‘GM Trade Wars’ by Ronald A. Bailey, an adjunct scholar at the Cato Institute, who lays all the blame for current trade as well as food aid problems at the feet of Europe, reducing it all to a case of ‘protectionism’.<sup>57</sup>

### **Linking Bush’s cabinet members to policy groups and think tanks**

Revolving doors between right-wing think tanks and the US government are many.<sup>58</sup>

- Ann Veneman, Secretary of Agriculture, is a member of the International Policy Council of Agriculture, Food and Trade (a policy group financed by Monsanto, Cargill, Archer Daniels Midland (ADM), Kraft and Nestlé) (see Dennis T. Avery, discussed on p. 73).
- Elaine Chao, Secretary of Labor, was formerly a distinguished fellow at the Heritage Foundation, the Washington-based right-wing policy group.
- Lynn Scarlett, Assistant Secretary for Policy, Management and Budget, is president of the Reason Foundation, a ‘wise use’ think tank.

- Paul H. O’Neill, Treasury Secretary, is a trustee at the Rand Corporation and the American Enterprise Institute, and the director of the Institute for International Economics.
- Lawrence Lindsey, top economic adviser to the President, is Arthur F. Burns chair at the American Enterprise Institute.
- Diana Furchgott-Roth, staff chief to the Council of Economic Advisers, is a resident fellow at the American Enterprise Institute.
- Nina Rees, adviser to Vice-President Cheney, is a senior analyst at the Heritage Foundation.

### **The Institute of Economic Affairs (IEA) and the European Science and Environment Forum (ESEF)**

*[The IEA] has played a most valuable role and has obviously had enormous influence. It also did a great deal of good in spreading the message for deregulation and in favour of capital markets.*

Lord Taverne, House of Lords speech, 21 January 1999

The IEA is a UK-based, right-wing, pro-free trade and pro-corporate think tank. It was founded in 1955 by the late Sir Antony Fisher, who made a fortune by establishing Britain’s first broiler chicken farm. Its general director is John Blundell. Since 1974 it has been developing similar institutions across the globe, evidently impressing Rupert Murdoch, who spoke of

the remarkable universe of similar think tanks around the world. All are inspired with the principles of classical liberalism that are fundamental to our civilisation. Each one is now following its own independent course, but all can be traced back to a founding ‘big bang’, the celebrated Institute of Economic Affairs. (Rupert Murdoch, President and CEO of News Corporation Ltd, October 1994)<sup>59</sup>

In common with a number of other think tanks, it receives industry support, while proudly claiming its independence from government funding and political parties. Many people associated with the organisation are well known for attacking the claims of environmentalists about the threat of climate change, the destruction of rainforests, the benefits of organic food and agriculture and the dangers of economic globalisation.

Each year the IEA publishes some 20 books, plus a quarterly journal on various public policy issues. It holds conferences, seminars, lectures and working lunches to discuss its themes (50–80 events a year). There is also a student outreach programme. The Institute’s research agenda includes:

- the risk of adopting the precautionary principle;
- private property rights and markets in environmental assets;
- the extent of scientific consensus on issues such as global warming;
- the growth and desirability of EU environmental regulations.

Members of the IEA have been involved in the production, for instance, of documentaries that have highlighted the ‘health risks’ of organic food and called environmental campaigners middle-class romantics who are attempting to prevent development in the South.

Such documentaries include the TV programme ‘Counterblast’,<sup>60</sup> which attempted to discredit organic food.<sup>61</sup> Roger Bate, who presented the programme, founded the Environment Unit at the Institute of Economic Affairs in 1993. Another was the Equinox documentary ‘The Modified Truth’,<sup>62</sup> which featured Professor Phillip Stott, the journalist Richard North, Julian Morris, the Director of the Environment and Technology Programme of the IEA, and Martin Durkin, who produced the Equinox programme. All these contributors were closely associated with the IEA at the time, but this was not disclosed in the Equinox programme, which questioned the motives of environmentalists for challenging genetic engineering.

Roger Bate was also co-founder and Director of ESEF, which was funded by the tobacco industry. According to the Norfolk Genetic Information Network,

ESEF’s task was to smuggle tobacco advocacy into a larger bundle of ‘sound science’ issues, including attacking such problematic areas for US corporate interests as the ‘ban on growth hormone for livestock; ban on rBGH [genetically engineered bovine growth hormone] to improve milk production; pesticide restrictions; ban on indoor smoking; restrictions on use of chlorine; ban on certain pharmaceutical products; restrictions on the use of biotechnology’.<sup>63</sup>

Roger Bate and Julian Morris, both involved in the IEA and the ESEF, edited a book called *Fearing Food: Risk, Health and the Environment* with contributions from Dennis Avery of the Hudson Institute (see pp. 73-4). They have also repeated and magnified Avery’s claim that people who eat organic food are more likely to be affected by *E. coli* 0157, even though it appears that no research has actually been carried out that demonstrates this.

Richard D. North, well-known contrarian and anti-environmentalist, has written several papers funded by the IEA on the benefits of genetic engineering.<sup>64</sup> The

*Ecologist* magazine claims that North’s book *Life On A Modern Planet* was funded by ICI and that Shell paid him to visit Nigeria’s Ogoniland to report favourably on the company’s actions there.<sup>65</sup>

Another stalwart of the IEA is Roger Scruton, a right-wing academic, writer and columnist, who was recently exposed as receiving funds from Japan Tobacco to place stories favourable to the tobacco industry in the media. He wrote a pamphlet for the IEA in 2001 in which he attacked the World Health Organisation without declaring his links to the tobacco industry. In an e-mail to Japan Tobacco proposing an increase in his fees, he suggested further attacks on the WHO and said ‘We propose a more general attack on the absurdity of trivial and unworkable transnational legislation, at a time of global crisis.’<sup>66</sup> He told the UK *Independent* newspaper: ‘I’m not particularly keen on defending tobacco, but I am keen on defending freedom.’<sup>67</sup>

### Some key proponents and ‘independent’ scientists

As already mentioned, it is a key PR strategy to identify, support and give opportunities to those scientists in good positions who will publicly speak up in favour of biotechnology. Scientists are supposed to be independent, factual and non-partisan, and are thus seen as the ideal communicators of the pro-biotech message. A good candidate is a scientist with a certain mindset and already established links with industry and/or government, or with hopes of gaining or maintaining funding for industry-tailored and application-driven projects.

Many of the most vocal and visible scientists promoting biotechnology seem to conform to a similar pattern. They frequently reflect a strong pro-corporate bias. They actively promote their views in the public domain, often seeking to discredit anyone who puts forward different views. Looking at the websites associated with outspoken biotech proponents whose articles and contributions are frequently found on the AgBioView e-mail list (see Professor Prakash, pp. 70–2), common threads can easily be found, including opposition to the Kyoto Treaty, CO2 emission regulation, DDT regulation and organic farming and labelling. This is illustrated in Table 3.1 (p. 68). Such views are amplified through bogus consumer alliances and their websites – such as the National Consumer Coalition ([www.foodstuff.org](http://www.foodstuff.org)) and International Consumers for a Civil Society ([www.icfcs.org](http://www.icfcs.org)). With an additional twist, it emerged during 2002 that some of the vocal GM advocates in the discussions do not actually exist at all, but are figments of virtual reality.<sup>68</sup> The Internet lends itself to the creation of illusions and this has not been lost on biotech proponents.

**Table 3.1:** Examples of biotech proponents, their websites and anti-environmental (X) views (2003)

Proponent, organisation and website	Kyoto treaty	CO <sub>2</sub> emission regulation	DDT regulation	Organic farming & labels	Concern about rainforest destruction	Tobacco taxes & regulation
Philip Stott ProBiotech www.ecotrop.org www.probiotech.fsnet.co.uk	X	X	X	X	X	
Steven J. Milloy Citizens for the Integrity of Science www.junkscience.com & www.nomorescares.com	X	X	X	X	X	X
Alex Avery Center for Global Food Issues www.cgfi.com	X	X	X	X		
Dennis Avery The Hudson Institute www.hudson.org	X	X	X	X		
Frances B Smith Consumer Alert www.consumeralert.org	X	X	X	X		
Gregory Conko Competitive Enterprise Institute www.cei.org	X	X	X	X	X	X
John Carlisle National Center for Public Policy Research www.nationalcenter.org	X	X	X	X	X	X

Data above partially based on information provided by Robert Vint.<sup>69</sup>

**Philip Stott** – Professor Emeritus of Biogeography, University of London, UK. An IEA intimate, though not a formal member. Organiser of the UK Seeds of Opportunity conference in May 2001.

**Steven J. Milloy** – Former tobacco industry lobbyist as well as a former executive director of TASSC (The Advancement of Sound Science Coalition), a front organisation created by tobacco giant Philip Morris. Steven J. Milloy is the publisher of Junkscience.com, an adjunct scholar at the Cato Institute and a columnist for FoxNews.com.

**Dennis Avery** – See chapter 3, pp. 73–4.

**Frances B. Smith** – Consumer Alert is a ‘consumer’ group opposing consumer safety and rights. Recipient of big tobacco funding.<sup>70</sup> Henry I. Miller (see pp. 67–9) is on its advisory council and sits – according to his own biography – on its board of directors.

**Gregory Conko** – CEI receives big tobacco funding.<sup>71</sup> Conko has a BA in Political Science and History. According to his biography on the CEI

website, he is – together with C. S. Prakash (see chapter 3, pp. 70–2) – co-founder of the AgBioWorld Foundation, where he also serves as vice-president and is on the board of directors. The CEI website states further:

Mr Conko served as a Principal Investigator for the California Council on Science and Technology’s 2002 report ‘Benefits and Risks of Food Biotechnology’, commissioned by the California state legislature and Governor Gray Davis....

Gregory Conko is a Policy Analyst and Director of Food Safety Policy with the Competitive Enterprise Institute (CEI) where he specialises in issues of food and pharmaceutical drug safety regulation, and on the general treatment of health risks in public policy. Mr Conko is particularly interested in the debate over the safety of genetically engineered foods and the application of the precautionary principle to domestic and international environmental and safety regulations. He frequently participates in international meetings on food safety and trade as a credentialed nongovernmental organisation representative.<sup>72</sup>

### **Henry I. Miller, MS, MD**

Henry I. Miller is included to illustrate the multiple linkages between think tanks, individuals, government and negotiations. He is one of many who could have been selected.

By training, Henry Miller is a physician. At present he is research fellow in 'public policy toward science and technology' at the Hoover Institution, which is part of Stanford University and well known as a conservative think tank (number 14 in the list of quoted think tanks mentioned on p. 63).<sup>73</sup>

During 1979–94 he worked for the US Food and Drug Administration (FDA). According to the Hoover Institution website,

he was the medical reviewer for the first genetically engineered drugs evaluated by the FDA and was instrumental in the rapid licensing of human insulin and human growth hormone. He served in several posts, including special assistant to the FDA commissioner, with responsibility for biotechnology issues; from 1989 to 1994, he was the founding director of the FDA's Office of Biotechnology.<sup>74</sup>

In 1994–6 he was Robert Wesson Fellow in Scientific Philosophy and Public Policy at the Hoover Institution.

Together with Norman E. Borlaug (see pp. 72–3), he is a director (since 1996) of the American Council on Science and Health (ACSH)<sup>75</sup> and a regular contributor to its magazine *Health Facts & Fears* (which can be read at [HealthFactsandFears.com](http://HealthFactsandFears.com)). He is an adviser to the US delegation to the Codex committee on biotechnology-derived food, an adjunct scholar at the Competitive Enterprise Institute (CEI), a member (since 1994) of the scientific advisory board of the George C. Marshall Institute and a director (since 1996) of Consumer Alert, one of the Sustainable Development Network's member organisations (see pp. 55–6). His biography also details his membership of the editorial boards of *Human Gene Therapy*, *Journal of Commercial Biotechnology*, *Medical Spectator*, and *Biotechnology Law Report*.<sup>76,77</sup>

His website at the Hoover Institution provides details of his work contributions in four areas:

(1) as a federal official, crafting and implementing science-based regulation and (2) explaining these policies to regulated industry, the scientific community, and the public; as a member of international panels and groups of experts, moving consensus toward the scientific view of risk assessment and management; (3) making science and technology and their regulation more widely understood, via articles in newspapers and magazines; and (4) performing research on and analyses of various issues related to science and

technology, including the description of models for regulatory reform.<sup>78</sup>

Many of his articles can be found on the AgBioView website of Professor Prakash (pp. 70–2). He often co-authors papers with members of other think tanks (with Gregory Conko, for example). As with other pro-GM think tanks and think-tank members, a main focus is on the EU and its supposed protectionism, he attacks the precautionary principle, the Cartagena Biosafety Protocol, labelling and stringent regulations. In an article ('European Move Will Stifle GMOs') published in July 2002 and posted on AgBioView, Henry I. Miller and Gregory Conko write:

Repeated analyses over two decades have documented Europe's lack of competitiveness in biotechnology, but last week, by formally ratifying the United Nations-sponsored Cartagena Protocol on Biosafety, the EU yet again has embraced an oversight regime that wrongly and excessively regulates the international movement and testing of safe, precisely crafted products, while exempting more problematic ones. ... Although numerous critiques of the so-called precautionary principle, which is not a principle at all but a kind of blanket justification for arbitrarily opposing disfavoured technologies and products, have been promulgated, its shortcomings are nowhere more evident than in GM regulation. This bogus principle has been invoked repeatedly to support unwarranted restrictions on some of the safest, most intensively studied food products in human history, and in a way that reflects that the goal is protectionism, not consumerism.

In July 2003, in support of the US challenge to the EU at the WTO, Henry Miller denounced the 'EU's unnecessary, unscientific and excessive regulatory requirements for GM crops and foods'.<sup>79</sup>

### **Professor Prakash**

Dr Channapatna S. Prakash – Professor of Plant Molecular Genetics – is known for 'working to promote acceptance of biotechnology in food and agriculture around the world, both in the scientific and marketing fields. Prakash also writes newspaper articles and delivers public lectures'.<sup>80</sup>

C. S. Prakash is Director of the Center for Plant Biotechnology Research at Tuskegee University, Alabama, USA, working on genetically engineering crops important to developing countries, such as sweet potato. He is a member of the USDA Advisory Committee on Agricultural Biotechnology and sits on the Commission on Biotechnology of the International Society for Horticultural Science. He is an adviser to the Department of Biotechnology of the Indian government.<sup>81</sup>

In 2000 Prakash started the pro-GM AgBioWorld Foundation together with Gregory Conko from the CEI (see Table 3.1) and now serves as its president. According to its own website, AgBioWorld is

devoted to bringing information about technological advances in agriculture to the developing world. Our members ... believe that recent developments in plant science, such as biotechnology, can and should be used to increase crop yields, grow more nutritious plants and reduce dependence on chemicals in order to alleviate hunger and to help preserve the environment.

The website also claims that AgBioWorld is 'an organization that has emerged from academic roots and values'.<sup>82</sup>

The website hosts a declaration by 'Scientists In Support Of Agricultural Biotechnology'. Of the 3,296 signatures collected by January 2002, approximately 32 per cent of signatories hold company/industry positions (9 per cent Monsanto alone), 38 per cent work in a university setting, 16 per cent are involved in private or governmental research organisations or industry organisations whilst 13–14 per cent fail to indicate whom they work for.<sup>83</sup>

This declaration serves a strategic purpose in the global drive to deregulate GM and further the biotech industry. Far from being scientist-led, it was conceived by CEI and Gregory Conko. In its 2000 annual report CEI states:

CEI also took an active part in the fight against what we call 'death by regulation' – regulatory policies that threaten people's health and safety. Foremost has been the battle over biotechnology, a promising technology in danger of being stymied by a host of regulatory controls. Among other things, we played a key role in the creation of a 'Declaration of Scientists in Support of Agricultural Biotechnology', which has been signed by more than 2,900 scientists at last count, among them three Nobel Prize winners.<sup>84</sup>

In mid-2002, the AgBioWorld website<sup>85</sup> offered 34 different media interviews with Prakash, a contact list of 40 international experts in the field, a number of articles and '31 Critical Questions in Agricultural Biotechnology'. AgBioWorld also offered the AgBioView e-mail list, which has featured many attacks on environmentalists, GM opponents and critical scientists (see Chapter 4).

A keen advocate of biotechnology, Prakash takes opportunities where they arise. He states that he has 'served as a speaker on behalf of the US State Department and has travelled to European, South-East Asian and Caribbean nations to deliver public lectures and meet with the media, scientists and trade experts ....' This itinerary has included two debates in London

with biotechnology critics and, according to the US embassy in London, speakers on such occasions 'are paid with US taxpayer money' as part of programmes 'to promote US government interests'.<sup>86</sup>

On the Equinox programme discussed above (see p. 65) he described organic food as dirty and dangerous and stated in a press release:

There is no scientific reason to believe that genetically engineered foods are any less safe than the foods we've been eating for centuries, so we members of the scientific community felt it necessary to counter the unfounded attacks that anti-biotech activists are spreading about these products.<sup>87</sup>

Prakash regularly claims that GM goods have been stringently tested ('for up to eight years' in both Canada and the US, for example).<sup>88</sup> When asked for proof of safety and peer-reviewed papers he responded in an e-mail:

Why don't your network sponsor some research in this direction? I am sure your researchers would find it frustrating as no safety concern will be found beyond what is already unsafe about our conventional food.

Interestingly, Professor Jose Domingo published a detailed database search in the prestigious journal *Science* showing that he could only find eight refereed journal articles dealing directly with the safety of GM foods. Only four of these were experimental feeding trials, three of which were undertaken by Monsanto teams.<sup>89</sup>

### **Nobel peace laureate Norman E. Borlaug**

Norman Borlaug, now in his late eighties, is still called upon by industry worldwide as an energetic promoter of intensive farming and biotechnology. He strongly supports Prakash and his AgBioWorld Foundation and serves on the board of directors of the American Council on Science and Health which campaigns against 'health scares' (see p. 67).

Norman Borlaug is well known as the 'father of the green revolution'. Working at the International Maize and Wheat Improvement Centre (CIMMYT) in Mexico, he developed the 'miracle' or high-response seeds that were later grown worldwide. He exemplifies the tendency for white Northern males to dominate agricultural research. Born at the beginning of the First World War, he went to university during the Great Depression. He then took a job as a microbiologist with DuPont and had the opportunity to join the first international agricultural development assistance programme through the Rockefeller Foundation in Mexico.

His main concern was to increase wheat yield in Mexico through breeding and to stay ahead of the

rapidly evolving wheat rust disease. His first innovation was 'high volume crossing', where he used wheat from all around the world and made thousands of crosses, constantly watching and selecting. This approach helped to fend off the threat of wheat rust. The second innovation was an accidental one. Trying to speed up breeding, he used two different areas in Mexico, one where he could plant in May and the other where he could plant the newly selected varieties in October. Though at first wheat growing well in one region would grow poorly in the other, further selection and moving seeds back and forth between the areas achieved a type of wheat that was adapted to more than one region. This type of breeding became known as 'shuttle breeding'. It broke a basic principle of breeding at that time – that plants needed to be adapted to the area in which they grew – and has now become commonplace amongst breeders.

He then helped to transfer the varieties developed in Mexico to Asia and later worked to establish CIMMYT in Mexico, modelled on IRRI in the Philippines, with the aim of disseminating what had been learned about wheat and corn in Mexico to the rest of the world. Robert W. Herdt, Rockefeller Foundation's Director for Agricultural Sciences, says of Borlaug:

In between times he took up the lecture circuit, hammering away at the need for constant attention to the global population problem, the need to increase food production, and the short-sightedness of misguided environmentalists who fail to see that fertiliser, pesticides and science stand between humanity and starvation.<sup>90</sup>

The still-active Borlaug is a major advocate of GM technology for the South. He is patron of the International Service for the Acquisition of Agri-Biotech Applications (ISAAA) (see pp. 124–7) and a senior consultant for Sasakawa–Global 2000 (see pp. 194–5 and Chapter 1).

### **The Hudson Institute and Dennis Avery**

The Hudson Institute (Indianapolis) is a US-based, pro-industry think tank that receives funding from biotechnology companies including Aventis (AgrEvo), Dow AgroSciences, Monsanto, Novartis Crop Protection and AstraZeneca. It is number 11 on the FAIR citation list for 1997 (see p. 63).

Dennis T. Avery studied agricultural economics at Michigan State University and the University of Wisconsin and worked as agricultural analyst (1980–8) for the US Department of State, assessing the foreign-policy implications of food and farming developments worldwide.

He is the Director of the Global Centre for Food Issues at the Hudson Institute and the author of *Saving the World with Pesticides and Plastics* and *How Poverty Won't Save the Planet*. He has made many claims

about the safety and benefits of GM foods whilst proclaiming that 'people who eat organic and "natural" foods are eight times as likely as the rest of the population to be attacked by a deadly new strain of *E. coli* bacteria'.<sup>91</sup>

His website reports that 'As a staff member of the President's National Advisory Commission on Food and Fiber, he wrote the Commission's landmark report, *Food and Fiber for the Future*.' It goes on to say:

Avery travels the world as a speaker, has testified before Congress, and has appeared on most of the nation's major television networks, including a program discussing the bacterial dangers of organic foods on ABC's 20/20.

At the Husker Feed Grains and Soybean Conference in Kearney, Nebraska in January 2000, Avery attributed intense consumer resistance to genetically enhanced crops to a well-conceived campaign by vegetarian-leaning activist groups. He also blamed poor marketing by agricultural input firms who developed 'designer' crops that could resist pressure from targeted insects and herbicides and were less expensive to grow.

However, with 'Golden Rice' in the pipeline he believes there is now a positive story that needs to be pushed (see pp. 135–40). In this climate, Avery has advised mainstream agriculturalists to go on the offensive against organic producers and consumer activist groups that spread what he calls misinformation about GMOs, crop chemicals and modern production methods.

Advertise. You don't have much ability to get the urban media to take your [GMO] story and present it now that they have presented the other side so vigorously ... but you have one avenue to reach the public and that's advertising.<sup>92</sup>

When the International Policy Council on Agriculture, Food and Trade which enjoys funding support from many of the largest biotech corporations (<http://www.agritrade.org/>) – held its World Food and Farming Congress in London in November 2002, Avery spoke on 'The Conflict between the Affluent Consumers and the Need of the Majority'. He is quoted as saying (and his Powerpoint slide programme repeated the message):

The activist stance on agricultural biotech is inhumane – it lacks humanity, caring, kindness, compassion, concern for people and society – it is denying the Third World equal lifespan and lifestyle choice and it is offering mainly weed-slavery in the hot sun.



## Notes

- 1 Michael Manekin, 'PR Nation: Anti-Spin Activist John Stauber Penetrates America's Lie Machine', *Westchester Weekly* (Massachusetts, USA), September 2001. – <http://www.commondreams.org/views01/0901-05.htm>
- 2 Stuart Ewen, *PR! A Social History of Spin*, Basic Books, 1996.
- 3 *Ibid.*
- 4 Sharon Beder and Richard Gosden, 'WPP: World Propaganda Power', *PR Watch*, 2001. <http://www.prwatch.org/prwissues/2001Q2/wpp.html>
- 5 Figures and some details from Hoover's online: <http://www.americasbest.com/stocks/hooveronline.htm>
- 6 DuPont Vision Statement, January 2003. <http://www1.dupont.com/NASApp/dupontglobal/corp/index.jsp?page=/overview/glance/vision/index.html>
- 7 'Creating Shareholder and Societal Value ... While Reducing Our Footprint throughout the Value Chain'. [http://www1.dupont.com/NASApp/dupontglobal/corp/index.jsp?GXHCgx\\_session\\_id=fe2f60ec2fdef3bf&GXHC\\_lang=en\\_US&GXHC\\_cry=US&page=/social/SHE/index.html](http://www1.dupont.com/NASApp/dupontglobal/corp/index.jsp?GXHCgx_session_id=fe2f60ec2fdef3bf&GXHC_lang=en_US&GXHC_cry=US&page=/social/SHE/index.html)
- 8 [http://www.syngentabiotech.com/who\\_vision.htm](http://www.syngentabiotech.com/who_vision.htm) (viewed December 2002).
- 9 Denis Staunton, 'Holocaust Survivors Protest at IG Farben Meeting', *Irish Times*, 19 August 1999. <http://www.fpp.co.uk/Auschwitz/docs/controversies/deathroll/IGFarben1.html>
- 10 'Nazi Slave Cash Dismissed as "Gesture"', BBC World Service, 15 December 1999. [http://news.bbc.co.uk/hi/english/world/europe/newsid\\_566000/566692.stm](http://news.bbc.co.uk/hi/english/world/europe/newsid_566000/566692.stm)
- 11 Yojana Sharma, 'Minorities – Germany: Gypsies Seek World War II Recompense', Inter Press Service, Berlin, 24 September 1998. [http://www.oneworld.net/ips2/sept98/10\\_19\\_020.html](http://www.oneworld.net/ips2/sept98/10_19_020.html)
- 12 Quoted on website 'Justice and Awareness', <http://194.247.116.119/>
- 13 'Dow/Union Carbide Merger Could Be a Toxic Combination', Infact Press Release, 30 August 1999. <http://www.infact.org/dowunion.html>
- 14 *Ibid.*
- 15 Professor Allan Fels, Chairman, Australian Competition and Consumer Commission, 'Globalisation and Competition Policy', Sydney Institute, 23 April 2001. [http://www.accc.gov.au/speeches/2001/Fels\\_Sydney\\_Institute\\_23\\_4\\_01.htm](http://www.accc.gov.au/speeches/2001/Fels_Sydney_Institute_23_4_01.htm)
- 16 Holly Knaus, 'Ciba–Geigy: Pushing Pills and Pesticides', *Multinational Monitor*, April 1993. The text can be found on [http://www.essential.org/monitor/hyper/issues/1993/04/mm0493\\_11.html](http://www.essential.org/monitor/hyper/issues/1993/04/mm0493_11.html)
- 17 Olle Hansson, *Inside Ciba–Geigy*, Penang, Malaysia: IOCU, 1989. Dr Olle Hansson was a Swedish neurologist and paediatrician.
- 18 Knaus, 'Ciba–Geigy'.
- 19 Jed Greer and Kenny Bruno, *Greenwash: the Reality behind Corporate Environmentalism*, Penang: Third World Network, 1996, pp. 131–2.
- 20 D.A. Derksen and P.R. Watson, 'Volunteer Crops: The gift that keeps on giving', Poster, Expert Committee on Weeds, Ottawa: ECW, 1999 (cited in Royal Society of Canada Report, 2001); K. Topinka, J. Hoffman and Hall, 'Pollen flow between herbicide tolerant canola (*Brassica napus*) is the cause of multiple resistant canola volunteers', Poster, Expert Committee on Weeds, Ottawa: ECW, 1999; R. K. Downey, 'Gene flow and rape – the Canadian experience', in *Gene flow and Agriculture: Relevance for Transgenic Crops*, British Crop Protection Council, Farnham, Surrey, UK: pp. 109–16; Mary MacArthur, 'Triple-resistant canola weeds found in Alta', *Western Producer*, 10 February 2000. <http://www.producer.com/articles/20000210/news/20000210/news01.html>
- 21 Severin Carrell, 'GM Threatens a Superweed Catastrophe', *Independent*, 29 June 2003.
- 22 Manekin, 'PR Nation'.
- 23 Now based in Arlington, Virginia, USA.
- 24 Sponsors listed on website of the Biotechnology Institute. <http://www.biotechinstitute.org/funding.html>
- 25 *Ibid.*
- 26 Welcome letter to website viewers by President Paul Hanle, 3 November 2001. <http://www.biotechinstitute.org/welcome.html>
- 27 Novartis PR, 10 September 1999.
- 28 *Ibid.*, 2 February 1999.
- 29 *Ibid.*, 10 September 1999.
- 30 [http://www.guerrillanews.com/stauber/stauber\\_transcript.html](http://www.guerrillanews.com/stauber/stauber_transcript.html)
- 31 *New York Times*, 8 December 1999.
- 32 Reported by *PR Watch*. <http://www.prwatch.org/prwissues/1999Q4/monsatan.html>
- 33 <http://www.sdnetwork.net>
- 34 Jonathan Matthews, 'The Fake Parade – under the Banner of Populist Protest, Multinational Corporations Manufacture the Poor', *Environment*, 3 December 2002. <http://www.freezerbox.com/archive/article.asp?id=254>
- 35 Greenpeace Business Conference, London, 6 Oct. 1999.
- 36 Quoted in Ann M. Thayer, 'Market Dynamics, Swayed by Customers up and down the Agricultural and Food Chain, Could Hurt Ag Biotech Businesses', C&EN Houston-News Analysis, *Business*, 77, 44 (1 November 1999), [http://courses.che.umn.edu/01fscn1102-1s/general\\_food\\_safety/gmo/gmo\\_CE\\_News2.html](http://courses.che.umn.edu/01fscn1102-1s/general_food_safety/gmo/gmo_CE_News2.html)
- 37 Manekin, 'PR Nation'.
- 38 Andrew Rowell, *Green Backlash: Global Subversion of the Environment Movement*, London: Routledge, 1996.
- 39 *Communications Programme for EuropaBio, January 1997*, prepared by Burson–Marsteller. [http://www.transnationale.org/anglais/sources/institutions/bm\\_europabio.html](http://www.transnationale.org/anglais/sources/institutions/bm_europabio.html)
- 40 Bill McAllister, 'Burson–Marsteller Buys Va. Lobbying Firm', *Washington Post*, 14 April 1999, p. E3, as quoted in *A Clear View*, 6, 3 (11 May 1999). <http://www.ewg.org/pub/home/clear/view/latest.html>
- 41 Environmental Working Group, 1997. <http://www.ewg.org/pub/home/clear/players/global.html>
- 42 BIO website. <http://www.bio.org/aboutbio/history.htm>
- 43 'About BIO: Partner to a Dynamic Industry Coming of Age'. <http://www.bio.org/aboutbio/history.asp>

- 44 [http://www.europabio.org/pages/eu\\_membership.asp](http://www.europabio.org/pages/eu_membership.asp)
- 45 EuropaBio website, membership page, December 2002. [http://www.europabio.org/pages/eu\\_membership.asp](http://www.europabio.org/pages/eu_membership.asp)
- 46 Quote from EuropaBio presentation on BIO website. <http://www.bio.org/links/Europe.asp#UK>
- 47 'The ICC and the Environment: Mastering Corporate Environmentalism', *Corporate Europe Observer*. [http://www.xs4all.nl/~ceo/icc/icc\\_environment.html](http://www.xs4all.nl/~ceo/icc/icc_environment.html)
- 48 'Africabio Position Statement on Modern Biotechnology'. <http://www.africabio.com>
- 49 <<http://www.aba.asn.au/>>. AusBiotech Ltd.'s website address has changed to: <http://www.ausbiotech.org>
- 50 AusBiotech membership website, December 2002. [www.ausbiotech.org/membwho.php](http://www.ausbiotech.org/membwho.php)
- 51 A list of these organisations can be found on the BIO website. <http://www.bio.org/links/international.html>
- 52 *The Ram's Horn – a Monthly Newsletter of Food System Analysis*, 126 (November/December 2001): 8. <http://www.ramshorn.bc.ca>
- 53 <http://www.fair.org/whats-fair.html>
- 54 Michael Dolny, 'What's in a Label? Right-wing Think Tanks Are Often Quoted, Rarely Labelled'. <http://www.fair.org/extra/9805/think-tanks.html>
- 55 Dolny, 'What's in a Label?'
- 56 Jessica Melugin and Roger Bate, 'Natural Doesn't Mean Safe', column in *Tech Central Station*, 4 November 2002. <http://www.free-market.net/rd/496119626.html>
- 57 Ronald A. Bailey, 'GM Trade Wars', 9 August 2002. <http://www.cato.org/research/articles/bailey-020809.html>
- 58 The following list is based on data published by the *Multinational Monitor*, 22, 5 (May 2001). <http://multinationalmonitor.org/mm2001/01may/may01busbcc.html>
- 59 <http://www.iea.org.uk/ieamain/abouttheiea.htm>
- 60 BBC2 TV broadcast, 31 January 2000.
- 61 The Soil Association published a rebuttal of the 'Counterblast' arguments on its website ([www.soilassociation.org](http://www.soilassociation.org)).
- 62 C4 broadcast, 19 March 2000.
- 63 Quote from 'How Big Tobacco Helped Create "The Junkman"', *PR Watch*, 7, 3. <http://www.prwatch.org>
- 64 C4 broadcast, 19 March 2000.
- 65 'Grim up North: a Profile of Richard D. North', *Ecologist*, January 2001.
- 66 Marie Woolf and David Lister: 'Scruton Likely to Lose Newspaper Columnist Job after Exposure of Financial Link to Tobacco Firm', *Independent*, 25 January 2002.
- 67 *Ibid.*
- 68 George Monbiot, 'The Fake Persuaders: Corporations Are Inventing People to Rubbish Their Opponents on the Internet', *Guardian*, 14 May 2002. <http://www.guardian.co.uk/Columnists/Column/0,5673,715158,00.html>
- 69 Robert Vint, 'Why Do the Key GM Food Advocates Oppose the Kyoto Treaty?' 19 April 2001. [rjvint@globalnet.co.uk](mailto:rjvint@globalnet.co.uk)
- 70 *PRWatch* investigates: 'No More Scares'. <http://members.tripod.com/~ngin/168.htm>
- 71 *Ibid.*
- 72 Short expert biography found on CEI website. <[http://www.cei.org/dyn/view\\_expert.cfm?expert=3&Submit2.x=10&Submit2.y=15](http://www.cei.org/dyn/view_expert.cfm?expert=3&Submit2.x=10&Submit2.y=15)> Longer biography found on [http://www.cei.org/dyn/view\\_bio.cfm/3](http://www.cei.org/dyn/view_bio.cfm/3)
- 73 [http://www-hoover.stanford.edu/bios/miller\\_h.html](http://www-hoover.stanford.edu/bios/miller_h.html)
- 74 Henry I. Miller's biography on the Hoover Institution website (January 2003). [http://www-hoover.stanford.edu/bios/miller\\_h.html](http://www-hoover.stanford.edu/bios/miller_h.html)
- 75 <http://www.acsh.org/>
- 76 <http://www.healthfactsandfears.com/contributors/hmiller.html> (December 2002).
- 77 Expert biography of Henry I. Miller found on CEI site. [http://www.cei.org/dyn/view\\_bio.cfm/150](http://www.cei.org/dyn/view_bio.cfm/150) (December 2002). Also on Hoover Institution site [http://www-hoover.stanford.edu/bios/miller\\_h.html](http://www-hoover.stanford.edu/bios/miller_h.html) (December 2002).
- 78 [http://www-hoover.stanford.edu/bios/miller\\_h.html](http://www-hoover.stanford.edu/bios/miller_h.html) (December 2002).
- 79 Henry Miller, 'First salvo in transatlantic food fight is far from last word', *Nature Biotechnology* 21 (7): 737–8, July 2003.
- 80 Sonia Chopra, 'Biotechnology's Standard Bearer', 7 September 2000. <http://www.thinkindia.com/>
- 81 <http://www.talksoy.com/Media/aBiotechExperts.htm>
- 82 <http://www.agbioworld.org/about/about.html>
- 83 Based on the first 1,000 signatures taken as a representative sample of declaration as found on agbioworld website. <http://www.agbioworld.org>
- 84 CEI Annual Report 2000. [http://www.cei.org/PDFs/2K\\_annual\\_report.pdf](http://www.cei.org/PDFs/2K_annual_report.pdf)
- 85 <http://www.agbioworld.org>
- 86 E-mail from Karen Morrisey of the US Embassy in London, 23 March 2001, to Marcus Williamson, Editor, *Genetically Modified Food-News*. <http://www.gmfoodnews.com/>
- 87 See press release, 'Nobel Prize Winners Endorse Agricultural Biotechnology', *AgBioWorld* 7 February 2000. [http://www.agbioworld.org/biotech\\_info/pr/watson.html](http://www.agbioworld.org/biotech_info/pr/watson.html)
- 88 Anne Dawson, 'Bone to Pick with GM Label', *Ottawa Sun*, 23 February 2002.
- 89 Jose L. Domingo, 'Health Risks of GM Food: Many Opinions but Few Data', letter to *Science*, 288, 5472 (9 June 2000): 1748–9.
- 90 Rockefeller Foundation website: [www.rockfound.org](http://www.rockfound.org).
- 91 Dennis Avery, 'The Hidden Dangers in Organic Food', *American Outlook*, Fall 1998, quarterly publication of the Hudson Institute. [http://hudson.org/American\\_Outlook/articles\\_fa98/avery.htm](http://hudson.org/American_Outlook/articles_fa98/avery.htm)
- 92 Gary Wulf, 'Farmers Urged to Stump for Ag Biotech Industry', *Bridge News*, 21 January 2000. This article is a report on the Husker Feed Grains and Soybean Conference in Kearney, Nebraska, in January 2000.