I will argue that the media has systematically misrepresented certain environmental issues - more from media structure than intent - and this has had a cumulative impact in which certain dubious and often totally wrong propositions have become accepted as undisputed truths. Examples will be given such as the causes of the outbreak of bird flu and then of swine flu (currently no longer considered to originate in swine), and the microbial contamination of food illustrated by the E coli 0157:H7 contamination of spinach. (May I add that the media has been doing a magnificent job of seeking to encourage protective actions including Flu shots. This is largely because they seek out informed expert opinion for their stories which they fail to do when discussing agricultural issues.) In fact, I would argue that the public is most likely to be wrongly informed by media coverage than they are likely to be correctly informed by it. I will spell out here and throughout the talk the role that the ideological NGOs and their followers and fellow believers play in perpetuating this misinformation.

Media Fantasies - Bird Flu

A fundamental and unchallenged tenet of the Greens is that the so-called "industrial agriculture" that is done such an outstanding job of feed us is wrong and has to be completely transformed. Factory chicken and swine production are particularly evil and create threats to human wellbeing including the creation and nurturing of dangerous micro-organisms. Consequently whenever there is an outbreak of a disease, bird flu or E coli 0157:H7, the ideologues immediately have the answer as to the cause even before any investigation has begun. Thus when there was the initial outbreak of bird flu (H5N1), blame was immediately assigned to the "industrial poultry trade" even though there was no evidence to support this assertion.

"But never fear, Grain, claimed that there are `commercial poultry farms in the region' that are probably to blame, that the disease spread from Qinghai to southern Siberia `during the summer months when birds do not migrate, and that it moved east to west along railway lines, roads, and international boundaries, not along migratory flyways."

Qinghai Lake which was the focus of much of the problem as a large number of birds died there from H5N1 flu. Qinghai Lake is in on the Tibetan Plateau 10,000 feet above sea level. It has been turned into a large nature preserve. It is China's largest salt water lake with a large island which is a bird sanctuary. The area around the lake is very lightly populated. As various scientific groups came to study the bird die-off, they felt compelled to deny that there were any commercial chicken farms in the area given the widely disseminated myths that there were (see article at end of this post).
If there were no "factory chicken farms" in the area, it was simple for the distant ideologues to invent them. Joanna Blythman in the British newspaper, The Guardian describes the factory poultry farms in some detail - "the hi-tech, intensive poultry farm, where as many as 40,000 birds can be kept in one shed and reared entirely indoors without ever seeing the light of day, is just like an overcrowded nursery of wheezy toddlers when the latest winter bug comes knocking - an ideal environment for spreading the disease and for encouraging the rapid mutation of a mild virus into a more pathogenic and highly transmissible strain, such as H5N1." "What we are saying is that H5N1 is a poultry virus killing wild birds, not the other way around," says Devlin Kuyek, from Grain.

Needless to say Blythman finds them around Qinghai Lake. Again citing the Grain (an NGO based in Barcelona) as a source, Joanna Blythman argues that "Intense debate has built up over one particular mass outbreak last year among geese at Qinghai Lake in northern China. ... What Qinghai Lake does have, however, is many surrounding intensive poultry farms whose "poultry manure", a euphemism for what is scraped off the floor of factory farms - bird faeces, feathers and soiled litter - is used as feed and fertiliser in fish farms and fields around Qinghai. ... Might it be that at Qinghai, H5N1 was passed from intensively reared birds to wild ones via chicken faeces, and not the other way around?" (Blythman, Joanna. 2006. So who's really to blame for bird flu? The Guardian (UK), Wednesday 7 June.)

Then there was a book that claimed that the outbreak originated in factory chicken farms - The Monster at Our Door: The Global Threat of Avian Flu by Mike Davis, The New Press, 2005

I sent the following over to an author who made claims about the commercial poultry farms near Qinghai but have yet to receive A REPLY several years later.

"You are often quoted claiming that there is a large commercial poultry farm near Qinghai Lake with added reference to a road and rail line there. I searched the internet and one reputable reference after another claimed that there were no commercial poultry operations in the region. The rail line seems to be the high tech line that has recently been completed which I presume would not be freighting much chicken. And all I could find on the road was reference to bicycle races on it. I would be interested in source of your data for the poultry operations, and rail and roads in the Qinghai Lake area used for transporting chickens."

The Paranoia

"A clue as to what this [underlying set of attitudes about wild birds] might be emerged in April at the first, hastily arranged World Migratory Bird Day in Nairobi, Kenya, which was described by its conservationist organizers as happening "at a time when migratory birds are being unfairly portrayed solely as the harbingers of death and disease" -- an absurdly exaggerated claim. Another critic said: "The real question is not, `are wild birds to blame, but why are wild birds being blamed?' In other words, this isn't about evaluating evidence, it's about building conspiracies."

"The only reason I can think of for all this is that we are dealing with a community acting more
on faith and emotion than reason. For them, birds are, by definition, innately pure and transcendent -- too pure to carry anything as mundane or dirty as a virus. Given this attitude, you can understand their denial, but they are doing neither wild birds nor humans any favors" (MacKenzie, Debora. 2006. Bird lovers in denial over bird flu, New Scientist 90(2552):24, 20 May).

For more detail, see:

http://www.uh.edu/~trdegreg/maddenmedia.htm Maddening Media Misinformation

Bird Flu - actual scientific evidence

Qinghai timeline point in 10 days – flu trackers but there are no poultry farms near Qinghai Lake, a protected nature reserve that is a breeding center for migratory birds from Southeast Asia, Siberia, ...www.flutrackers.com/forum/showthread.php?t=4505

"The outbreak raises other questions, including how the virus got to this sparsely populated corner of China. Since H5N1 appeared, researchers have debated whether migratory birds can spread it. Some aquatic birds are known to host strains of the virus with no or minimal symptoms. But the United Nations' Food and Agriculture Organization says there is no evidence tying outbreaks in poultry to wild birds." AVIAN INFLUENZA: Potentially More Lethal Variant Hits Migratory Birds in China by Dennis Normile, Science 309(5732): 8 July 2005:, p. 231.


Possible sources were integrated chicken farms in southern China - the kind that American writers like Michael Pollan tout as being the future of agriculture. At least one popular article begins with a comment about the farms with massive chicken production (apparently the "factory farms") then morphs into the poultry trade. Since these large operations tend to clean and refrigerate their chickens before shipping, the reference to the poultry trade would likely be to the smaller scale trade in live birds. We do know the few cases where Avian Flu jumped to humans in Viet Nam and in Indonesia that it took place in the live bird market which has historically been where Avian Flues morphed into a Flu that was transmissible by humans.

 Other peer-reviewed articles based on actual research (some of which found the bird flu on mixed farms with free range chickens, ducks and ponds where wild birds stopped-over but not in
the "factory farms.")

Gilbert, M; P Chaitaweesub, T Parakamawongsa, S Premashthira, T Tiensin, W. Kalpravidh, Hans Wagner and Jan Slingenbergh. 2006 Free grazing ducks and highly pathogenic avian influenza, Thailand. Atlanta, Georgia: Emerging Infectious Disease, National Center for Infectious Diseases, Centers for Disease Control and Prevention, 12(2)227-233, February. 


Tiensin, Thanawat; Prasit Chaitaweesub, Thaweesak Songserm, Arunee Chaisingh, Wirongrong Hoonsuwon, Chantanee Buranathai, Tippawon Parakamawongsa, Sith Premashthira, Alongkorn Amonsin, Marius Gilbert, Mirjam Nielen, and Arjan Stegeman. 2004. Avian Influenza H5N1, Thailand, 2004, Atlanta, Georgia: Emerging Infectious Disease, National Center for Infectious Diseases, Centers for Disease Control and Prevention, 11(11), November.

Webster, Robert G.; Malik Peiris, Honglin Chen and Yi Guan. 2006. H5N1 Outbreaks and Enzootic Influenza, Emerging Infectious Disease, National Center for Infectious Diseases, Centers for Disease Control and Prevention, 12(1) January.

Establishment of multiple sublineages of H5N1 influenza virus in Asia: Implications for pandemic control by H. Chen, et. al. (28 authors), PNAS 2006 103:2845-2850; February 21)
Currently, scientists in Europe and elsewhere assume based on the evidence thus far accumulated that there are multiple transmissions vehicles for bird flu - wild birds and the live poultry trade. For example:

Ducks as Sentinels for Avian Influenza in Wild Birds by Anja Globig, Anette Baumer, Sandra Revilla-Fernández, Martin Beer, Eveline Wodak, Maria Fink, Norbert Greber, Timm C. Harder, Hendrik Wilking, Iris Brunhart, Doris Matthes, Ulf Kraatz, Peter Strunk, Wolfgang Fiedler, Sasan R. Fereidouni, Christoph Staubach, Franz J. Conraths, Chris Griot, Thomas C. Mettenleiter, and Katharina D.C. Stärk, Emerging Infectious Diseases, Volume 15, Number 10–October 2009,
The Ducks were confined separating them from possible infection from poultry but open to contact with wild birds so that those that became infected definitely received in from wild birds. The purpose of the study was not to "prove" that wildlife carries the Avian Influenza but to create a means by which wildlife into an area can be monitored to see if they are carrying Avian Influenza.

For a more outbreak of Bird flu with transmission to humans H7N9, the scientific literature is once again clear - Effect of closure of live poultry markets on poultry-to-person transmission of avian influenza A H7N9 virus: an ecological study, The Lancet, Early Online Publication, 31 October 2013 http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(13)61904-2/fulltext

Misrepresentations of agriculture and food supply - E coli 0157:H7, "Swine Flu"

With any E coli 0157:H7 outbreak, the true believers are immediately able to invent and describe the source to fit their ideology.

"The E. coli came from an industrial cattle ranch nearby. Tightly packed cows were over fed with unhealthy grain and produced E. coli in their feces. The contaminated feces washed downstream into the water supply, infecting the spinach fields." (Corporate Agribusiness Is Behind Our Deadly Food Supply By Sally Kohn, AlterNet, Posted on December 18, 2006. http://www.alternet.org/story/45530

The same was true for the "swine flu" outbreak in Mexico. The Swine Flu Crisis Lays Bare the Meat Industry's Monstrous Power, By Mike Davis, Comment Is Free Posted on April 28, 2009. http://www.alternet.org/story/138798/ Tom Philpot used the swine flu outbreak in Mexico in possibly as many as 20 articles in the online publication Grist. An activist discovering a large pig operation in the vicinity of a death from “Swine Flu” was proof positive that it was the source of the outbreak. At least one network news program sent a reporter to the operation to seek an interview. This led to a call from the Organic Trade Association for all “factory” agricultural operations – poultry (meat and eggs), pigs and beef – to be shut down immediately. Subsequent scientific inquiry determined that the strain originated in Asia and the original source was chickens not pigs.

Agriculture and food supply - E coli 0157:H7, the evidence

After several months of investigation, scientific investigators determined that the source for the contaminated spinach was plots in the 2nd year of transition to organic agriculture. That means that in the year that the spinach was grown and in the previous year, only organic methods were used to grow it. The source for that plot's contaminations (which was determined by analysis of the particular strain of E coli 0157:H7) was a low density free range cattle ranch across the river. CFGFI (Center for Global Food Issues) 2007. Deadly Organic Spinach, 9 March. http://www.cgfi.org/cgficommentary/deadly-organic-spinach

"The ranch's website even refers visitors to a website that claims people who eat grass-fed beef
have a much lower risk of becoming infected with the [E. coli bacteria]' and that E. coli O157:H7 from grass-fed cattle are far less likely 'to survive the natural acidity of our digestive tract' (CFGI 2006).” We learn further that Paicines Ranch is "strictly a grass-only, pasture-based operation -- the kind they themselves advocate as the 'safe alternative' to so-called 'factory farms' (CFGI 2006).”

Earthbound Farms advertised that it sold "Food for Life," adding that "It's just plain healthy to include lots of organic vegetables in your diet" (Avery and Avery 2006).

Avery, Dennis and Alex Avery. 2006. Organic farming more dangerous to consumers, Pantagraph.com (Illinois), 15 October.
http://www.pantagraph.com/articles/2006/10/15/opinion/viewpoint/120023.txt

Avery, Alex. 2007. Misinformation Machine Media: An apology to Joe Mendelson for thinking he lied to an audience at the National Academy of Sciences, American Council on Science and Health, Health Facts And Fears.com, 15 March.

Avery states "I could not find a single wire service report or mainstream media piece informing readers that the spinach outbreak was traced back to grass-fed cattle. There were no AP stories mentioning this, no Reuters, no L.A. Times, not even the organic-food-centric New York Times. Only my own October 30th blog and a self-posted op-ed (no major outlet accepted it) that almost my whole family read."

Similarly, there have been only a handful of stories reporting the February 27th revelation by California regulators that the fifty-acre spinach field was transitioning to "certified" organic status and that the tainted spinach was, thus, "organically grown." (Avery 2007)

In response to Holdrege, Craig. 2007. Blame factory farming, not organic food, Nature Biotechnology 25:165, 1 February, the editors of Nature Biotechnology stated the following:

"The most comprehensive peer-reviewed study to look at contamination of produce found that organic fruits and vegetables are three times more likely to be contaminated with bacteria than conventional produce; indeed, of all the produce tested, the study found the pathogen Salmonella exclusively in organic lettuce and organic green peppers. Of a total of 15 farms that had E. coli-positive samples, thirteen were organic and only two were conventional."

"There is a simple fix available, however, that could stem the rising tide of cases of food-borne illness in the United States.
Irradiation of fruits and vegetables would eliminate 99.999% of pathogens. It would have prevented or drastically reduced all of last year's E. coli outbreaks. And most important of all, it would have saved lives. It's hard to understand why a country that already irradiates its meat should not do the same to its fruits and vegetables." Nature Biotechnology 2007. Blame factory farming, not organic food: a response, Nature Biotechnology 25:165, 1 February.
Misrepresentations of agriculture and the environment that are illustrated by the controversy over genetically modified food.

One of the worst cases of misrepresentation was the FRONTLINE program - Seeds of Suicide | PBS, July 2005. I am virtually certain (99.9% but I have been unable to verify this even with an extensive Google search) that this was the program that I saw on KUHT. If not, it was one that was just as bad and in my judgment it was irresponsible of KUHT to present the program that I saw - it was a slick erroneous bit of propaganda that could have been easily refuted if KUHT had taken minimal trouble to contact any one knowledgeable on the subject. I did call KUHT prior to the showing of the program asking whether there was to be any informed discussion of it after the program and the answer was no. Unfortunately, everyone whom I have asked on campus who has heard about Bt. cotton, knows only about the alleged Seeds of Suicide which they accept as a proven fact. None were aware if any counter arguments. The literature on the subject was already substantial - for two articles on the suicide (published after the program), see Doubts surround link between Bt. cotton failure and farmer suicide by Cormac Sheridan Dublin, Nature Biotechnology, Volume 27 Number 1 January 2009, <http://fbae.org/2009/FBAE/website/images/pdf/biosafety/Doubts_of_Bt_cotton's_role_in_Indian_farmers_Suicides.pdf> and Bt. Cotton and Farmer Suicides in India: Reviewing the Evidence, The International Food Policy Research Institute’s (IFPRI), 2008( www.ifpri.org/publication/bt-cotton-and-farmer-suicides-india )

LET ME MAKE CLEAR, I was not opposed to broadcasting the program. FRONTLINE is often controversial and that is good. But I objected to a totally one sided presentation (there was a built-in differing view when the creator of the film did a long interview with a distinguished economist and edited it in the least significant points and omitted the most important ones). I verified the selected editing with Jadish Bhagwati. In a footnote in his latest book Why Growth Matters: How Economic Growth in India Reduced Poverty and the Lessons for Other Developing Countries written with Arvind Panagariya, Bhagwati mentions being on panel with the film maker who admitted that the depicted suicides were not the result of the failure of Bt. cotton.) A call to Texas A&M or any of our great agricultural institutions would have provided ample opportunity of a contrary perspective.

In fact Bt. cotton has been an extraordinary success. For example:

"On average, Bt.-adopting farmers realize pesticide reductions of roughly 40%, and yield advantages of 30-40%. Profit gains are at a magnitude of US $60 per acre. These benefits have been sustainable over time. Farmers' satisfaction is reflected in a high willingness to pay for Bt. seeds" In addition, "India has been able to improve its position in world cotton trade from the third largest importer in 2002-03 to the second largest exporter after the United States in 2007-08."(Bt Cotton in India by Prakash Sadashivappa, AgBioForum, Volume 12 // Number 2 // Article 3, http://www.agbioforum.org/v12n2/v12n2a03-sadashivappa.htm )

The Adoption and Economics of B. Cotton in India
A more recent study found that Indian farmers who planted Bt. Cotton were more prosperous and their families were better off than before including improved health, nutrition and food security. See - Qaim, M, Kouser, S (2013), ‘Genetically modified crops and food security’, PLOS ONE 8(6) - http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0064879
As of this editing (November 2013), Bt. cotton in India remains a huge success (circa 7.4 million farmers planting it) and it is supported by the Indian Ministry of Agriculture. There is a substantial growing body of scientific research and writing on the benefits of Bt. cotton in India and elsewhere. Unfortunately, there is also the ongoing mythology concerning farmer suicides in India as a result of Bt. cotton.

Unfortunately gross misrepresentation of genetic engineering of food and fiber crops can also be found on network television in the U.S. on very popular programs such as CSI (Crime Scene Investigation): Miami, October 19, 2009. One could spend this entire session discussing the multitude of errors both in law and in science expressed in this program. A two-minute video clip of the CSI: Miami - Mutant Corn is available at:

http://www.cbs.com/primetime/csi_miami/video/?pid=ub_Y_XdQUmufnibSbPvLOvEQRXDuBkZ

The television network (CBS) seems to be confused over whether the episode is called “Bad Seed” or “Mutant Corn”. Either way, the full episode (43 min.) can be found at:

http://www.cbs.com/primetime/csi_miami/video/?pid=_4ng41etXvXmfz4OE7XBbIVAqsfjViv&vs=Full%20Episodes&play=true

Misrepresentations about Maize in Mexico
The Houston Chronicle, Sunday, February 22, 2004, published a long article beginning on the front page and continuing inside for at least a full page titled Genetically altered corn worries Mexican farmers By DINA CAPPIELLO, Houston Chronicle Environment Writer

I immediately began to draft a letter seeking corrections for an article which as one plant scientist who read it said that it "did not have even the slightest pretense of objectivity." I contacted a number of scientists at Texas A&M in different areas with international reputations in maize (corn) and sought their support. All of them had read the article, believed that it was biased and agreed to sign the letter. I attempted to reach Dr. Norman Borlaug (the Nobel Prize winning....) but was unable to do so. However, he later contacted me, praised the letter and indicated that he would have signed it if he had received it in time as he had also read the article and found it biased.

I apologized for the extreme length of letter but felt that it was necessary to document the claim of bias and the need for counter arguments to be presented. I did not expect nor did I ask for the
letter to be printed but I had hoped that the Chronicle would send a reporter to Texas A&M to interview the scientists who signed it and possibly others. If they could afford to send a reporter to Mexico City than they could certainly afford to send one a few miles north to Texas A&M. This was at the tail end of a period in which newspapers were highly profitable. At the end of an extended exchange of emails, the Chronicle ombudsman, we were told that the subject would need to be revisited. In over a decade since, the Chronicle has not done so. I had thought that an ombudsman function was to correct journalistic errors. I was mistaken. We later learned that the writer had traveled to Mexico in the company of anti-GM activist's NGOs. Can one imagine the fuss that would have been raised had she traveled there with representatives of Monsanto?

Excerpts from the letter:

Much of what are presented as facts are highly questionable. And there were and are any number of highly qualified sources that could have either rebutted them or at least presented an alternative narrative. Among those in Mexico are Juan Pablo Ricardo Martínez-Soriano at the Centro de Investigación y Estudios Avanzados del Instituto Politécnico Nacional and Diana Sara Leal-Klevezas at the Instituto Mexicano del Seguro Social. They co-authored a letter to Science (the year prior to the one of Quist and Chapela) titled “Transgenic Maize in Mexico: No Need for Concern.” ** They could have contacted, Luis Herrera Estrella who is considered one of the world’s leading experts in the field or Ana María Bailey and Joel Lara-Reyna who joined Martínez-Soriano and Leal-Klevezas in letter to Nature Biotechnology titled, “Transgenes in Mexican maize”*** a few months following the Quist and Chapela letter. These are Mexican scientists, living and working there who do not have an ideological agenda to promote and who have the respect of the international scientific community. They not only did not see a problem, they thought that a gene transfer from a transgenic plant might be beneficial. Right or wrong, they deserve to be heard.

(Note - apparently the NGOs who tirelessly campaign for the locals to be heard are only capable of hearing those who agree with them.)

Unfortunately, this is just the beginning of those not contacted. In El Batan, Mexico, there is the International Maize and Wheat Improvement Center (CIMMYT or Centro Internacional de Mejoramiento de Maíz y Trigo in El Batan, Texcoco, Mexico) that with its predecessor institutions have been doing research in maize and wheat since 1943. It is an international institution that has leading researchers on its staff from all over the world. It was the first of the IARCs (International Agriculture Research Centers) that have become a mainstay of global research of agriculture throughout the world. Over the last 60 years, CIMMYT (and its predecessor institutions) have been the home of the finest plant breeders in the world including Dr. Norman Borlaug who won the 1970 Nobel Peace prize for his development of the high Yielding Variety (HYV) of wheat which with its successors and similar developments in rice (by another IARC, the International Rice Research Institute in the Philippines or IRRI) has close to tripled grain production and fed a world population that has more than doubled while using only 4% more land under grain cultivation. Anyone engaged in wheat or maize research anywhere in the world is likely to be in regular contact with them and/or attended seminars there and/or had delegations from CIMMYT visit them. The CIMMYT seed collection and storage in for these
crops is unrivaled and is regularly drawn upon to support local agriculture when it has a problem such as the need for a disease resistant variety.

If the reporter did not wish to go to CIMMYT, it would have been simple to just check their web page for their postings on the transgenic maize issue and the symposium that they held on the subject as you can now do.

Transgenic Maize in Mexico: Facts and Future Research Needs PDF version. TRANSGENIC MAIZE IN MEXICO: FACTS AND FUTURE RESEARCH NEEDS. 8 May 2002. El Batan, Texcoco, Mexico-In recent weeks and months, debate over the possible arrival of transgenes in Mexican landraces has received extensive media attention. As an international research institution based in Mexico (the c...

(I commented in a posted article that going to Mexico and not knowing of either CIMMYT or Dr. Borlaugh would be like going to Rome to write a piece on the Roman Catholic Church and not knowing of either the Pope or the Vatican. May I add that Cappiello not interviewing any of the Mexican scientists above would in addition be like not knowing about the Sacred College of Cardinals. May I admit as a University of Texas PhD who has told any number of crude Aggie jokes that Texas A&M is world renown in maize research. Out intrepid reporter could have easily found expertise with a differing perspective either in Mexico or nearby here in Texas or both.)

Postscript: I quote from a letter sent to the Public Editor of The New York Times by a friend of mine.

"I write to call your attention to an admission of repeated, clear violations of journalistic ethics in your pages that has misinformed readers and damaged the credibility of the New York Times. Please see the video at this link: [video link]. Michael Pollan, is interviewed by a sympathetic journalist, sharing his biases and predilections. In the course of the conversation Pollan candidly and repeatedly admits … that he has knowingly and repeatedly duped the editors of the New York Times into allowing him to print biased and fact challenged pieces as though they were credible and defensible” without considering that there might be legitimate alternate perspectives on his issues.

May I add that Pollan then claims that an organized campaign by corporations involved in food production somehow recently forced the media including The New York Times to present a very legitimate understanding on issues differing from Pollan and those who share his belief. See for example the wonderful July 27th 2013 New York Times article by Amy Harmon A Race to Save the Orange by Altering Its DNA which Micheal Pollan chose unfairly to trash on Tweeter.

See also Amy Harmon Golden Rice: Lifesaver? The New York Times, August 24, 2013 for the more balanced
coverage of food issues that we have been waiting for the Times to provide us. Apparently Pollan and his fellow true believers cannot abide any presentations other than their own.

Vandana Shiva the revered global philosopher and the go-to expert on all things including Bt. Cotton caused suicides and Golden Rice never-the-less was unable to distinguish a rice field from a field of weeds when she was in Houston in November 2000.


"Before leaving Alvin to prepare for a 7 p.m. lecture in Houston titled 'WTO, Basmati Rice & the Stolen Harvest,' Shiva walked across the road and looked out into a shaggy field.

"They look unhappy," she said. "The rice plants. Ours at home look very happy."

"That," RiceTec reports, "is because it's not rice. That's our test field, it was harvested in August. That's weeds."

Unfortunately, a more recent article in the Houston Press on agricultural biotechnology does not even rise to a level in which it could be called bad journalism. “The Monsanto Menace: The feds see no evil as a belligerent strongman seeks control of America's food supply” by Chris Parker, Houston Press, July 24, 2013. [http://www.houstonpress.com/2013-07-25/restaurants/monsanto-menace/]

The issue of Golden Rice (enhanced beta carotene, the precursor to Vitamin A) warrants a separate lecture and documentation. Each day 1,000 lives are lost each day (based on the estimated 350,000 to 500,000 lives lost each year) directly as a result of Vitamin A deficiency. A total of 6,000 lives are lost each day (based on the estimated 2 to 2.5 million lives lost each year) from other causes made virulent because of the weaken condition of children and some adults due to Vitamin A deficiency. These figures include those children who go blind each year and die of other causes very soon afterwards (most often within the year) but does not include those who go blind and remain blind for the rest of their lives. The evidence for the potential benefits of Golden Rice is massive and overwhelming as is the scientific evidence in peer reviewed journals, the consensus of scientists and scientific organizations. Equally important is the fact that those individuals and organizations who 1st identified Vitamin A deficiency as a cause of child deaths or who have been in the forefront of combating Vitamin A Deficiency (VAD) and its related malady Iron Anemic Deficiency (IAD) see the potential live saving efficacy of Golden Rice. This includes distributing Vitamin A pills and/or helping farmers grow more fruits and vegetables as a food source for Vitamin A. All recognize that in the fight against Vitamin A deficiency all weapons are needed. Those involved in increasing rice yields are also contributing because as the evidence shows where rice yields increase faster than population, farmers are able to switch to other crops including fruits and vegetables. In virtually every country in Asia (including everyone for which I have data), the percentage of cropland for the primary grain is falling as other crops take their place.

In spite of this evidence, groups like Greenpeace, Friends of the Earth and others have been leading global campaigns delaying the introduction of Golden Rice. Anyone who is either a member of one of these organizations or in any way supports them has an obligation before they put their head on their pillow each night needs to think about the one to six thousand children who died that day directly or indirectly from Vitamin A deficiency and ask themselves whether they contribute to those deaths?