

Response from Munlochy GM Vigil to
India's draft "National Biotechnology Development Strategy"
10th May 2005

The Munlochy GM Vigil represents the views of various stakeholders on the issue of GM crops and foods. These include consumers, farmers, landowners and retailers. Although based in Scotland, and inevitably with a large European dimension, we have constantly kept an eye on, and have been involved with the international dimensions of this issue.

GM crops and food are global issues. India cannot stand alone, neither can the USA. Food is vital to us all. Confidence in our food, availability of a safe and varied food supply, and a healthy, diverse agriculture are essential. In this context, which to some extent seems to have been forgotten by the managements of some multinational corporations, and even some governments, we would like to address some of the dimensions of your strategy in relation to GM agriculture, outlined in the aforementioned "Development Strategy".

The overall thrust of the strategy, which is barely different for transgenic agriculture, is "facilitation". This may not be surprising considering it is a "development strategy". However, it may also turn out to be a grave mistake. Precaution undoubtedly has a place when genes are transferred between species, when viruses and bacteria are extensively used in this process, and when the results are released into the open environment to reproduce; and then into our food supply. Instead of precaution however, we find words such as "necessary" and "hope" (science or propaganda?).

We note that a novel industry may be in formation, but we also note the lack of solid economic underpinnings. For example, where is the calculation of the opportunity cost? Where are the projections for demand for GM foods? Where is the private capital flooding into the development of these crops? Your country's allocation of resources is being determined by hope and conjecture (or maybe the desperate promises of a multinational which cannot even use its monopoly position to guarantee its own future).

Where in this draft document is there a discussion of the varied scientific opinions on the safety of GM crops and foods (or even the fact that the EU is about to start the first research project in the world on their safety)?

Where is the discussion of risk assessments, safety legislation, labelling, traceability, monitoring schemes, co existence measures and liability?

Where is the in depth discussion of alternatives, such as marker assisted breeding?

Where do we find a variety of views on the patenting issue?

Where do we hear about public involvement in the overall process an genuine consumer

choice, as opposed to "training of the media" and words such as "focused" and "well directed"?

Where do we see proposals for the effective engagement of civil society, or consumers groups, farmers groups, and ngos?

Where is the consideration of market rejection, of the history of GM failures, and the stark reality of the present global situation?

Why no mention of Starlink, Prodigene, or Bt 10? Is India immune to "human error".

You have presented your country with gloss, where the need for substance is self evident. You have aroused concerns of undue external pressure and influence, playing through certain vested interests in your own country. You have failed to justify your loose use of "hope" and "necessity". And if implemented without a widespread, inclusive and honest appraisal of all the dimensions of GM crops and foods, you will have failed in you duty to Indian agriculture, and the Indian People.

We do hope that further considerations will in good time, be forthcoming.

Thank you for your time,

Anthony Jackson and Nigel Mullan
(on behalf of Munlochy GM Vigil)

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We copy below two recent press reports for your information:

1)

ACGA Raises Concerns About Lost Corn Gluten Market Low Corn Prices Due to Biotech Blundering

(For Immediate Release. Contact: Dan McGuire (402) 489-1346, Larry Mitchell (202) 835-0331

AMERICAN CORN GROWERS FOUNDATION RAISES CONCERNS ABOUT LOST CORN GLUTEN MARKET - LOW CORN PRICES DUE TO BIOTECH BLUNDERING

Washington, D.C., May 9, 2005 - The American Corn Growers Foundation (ACGF) and the American Corn Growers Association (ACGA) are warning U.S. corn farmers that key U.S. corn gluten exports are being lost due to unapproved biotech, specifically GMO (genetically modified organisms) varieties that are unacceptable in various markets.

"Blundering biotech companies and their arrogance toward world buyers and consumers cost the U.S. the valuable, cash paying European Union (EU-25) corn market since 1996, and caused substantial corn export reductions to Japan. Now, adding insult to economic injury, some biotech companies and their carelessness is putting the EU-25 import market for U.S. corn gluten feed and meal in serious jeopardy, with the EU-25 now testing every cargo," says Dan McGuire, CEO of the American Corn Growers Foundation and project director of the ACGF Farmer Choice-Customer First program. "Foreign demand for U.S. corn gluten is extremely important for the economic future of corn processing ethanol plants. The EU bought 5 million metric tons (MMT) with an export value of \$403,726,000 as recently as the 1999-00 marketing year. But in the most recent 2004 marketing year, the EU-25's imports of U.S. corn gluten had dropped to 3.6 MMT with a value of only \$377,636,000. In the current 2005 marketing year (September through February) EU-25 imports are only 1.2 MMT compared to 1.9 MMT the year earlier," added McGuire.

"Last Friday corn prices were only \$1.63 per bu. in both Utica, S.D. and Wayne, Neb., a disastrous price, due largely to the failure of the current 'export oriented' farm policy to deliver on corn exports as promised," said Larry Mitchell, ACGA CEO. "If the crafters of the current U.S. farm policy still believe it is 'export oriented' they should require the biotech companies to get onboard. Biotech arrogance is losing U.S. exports. Maybe those same biotech companies should be sent the bill for lost corn markets, low corn prices and the resulting high cost of the farm program."

2)

Biotech failure all too familiar - By Luke Timmerman - Seattle Times business reporter. Seattle Times, April 6, 2005.

http://seattletimes.nwsourc.com/html/business/technology/2002232290_biofailure06.html

Bob Schroff joined a Seattle biotech company in 1984 as a young scientist with a dream to revolutionize cancer therapy. But after six years at NeoRx creating antibodies to destroy cancer cells, he decided he was "tired of beating my head against a wall," Schroff said. He switched to a more promising cardiovascular project at NeoRx and spent six years on that, only to see the research run out of money. That was enough. Schroff, who lives in Edmonds, now does some biotech consulting from home, but he also repairs boots. "It ticks you off," Schroff said about seeing his research projects die. "You begin to have serious doubts. You say to yourself, 'Maybe I should chuck this and go buy a gas station.'"

With a recent run of disappointing clinical trials by local companies, hundreds of other biotech workers are coping with failure in their own ways. Everyone in the industry knows the odds of success are slim. Only one in 10 drugs enticing enough to enter human tests ever advances to the market. That doesn't make failing easier to handle. "To be told the last seven or so years of your life really haven't been productive - that is not a good thing to be told," said Bruce Montgomery, chief executive of Seattle-based Corus Pharma.

Just since December, area biotechs have abandoned several costly and ambitious research programs. Targeted Genetics gave up after 15 years of laboring toward a cure for cystic fibrosis. Icos scrapped its tests of a drug against emphysema and chronic bronchitis after four years. Corixa dropped a lymphoma drug that was 15 years in the making. When a high-profile project crashes, Montgomery said, workers go through the stages of grief: denial, anger, bargaining, depression and acceptance. Sometimes the loss is mourned with a "wake" at a local pub.

What comes next depends on the individual. When South San Francisco-based Genentech wanted to cancel its AIDS-vaccine program, internationally known researcher Don Francis insisted the project just needed more work and resources. He spun it out as an independent company, VaxGen. More than \$150 million later, the vaccine failed again. Most researchers don't have the option of just stubbornly plowing ahead.

Montgomery said he has seen people re-energized from a new project, as long as their job isn't in jeopardy. Alternatively, workers will bolt to another company while they second-guess management for using the wrong dose or targeting the wrong patient population. Others leave the business altogether, their purpose in life shaken. Former biotech workers around Seattle are now selling real estate or motorcycles, or teaching high-school science. But most researchers tend to be resilient in defeat. Failure is familiar turf for many young scientists, who on their way to graduate degrees have usually run multiple experiments that don't succeed.

At Pathogenesis, a Seattle biotech company that successfully developed a cystic-fibrosis drug in the 1990s, employees were skeptical all along, said Montgomery, who ran its R&D. Many did not believe in the drug until the Food and Drug Administration approved it, he said.

Schroff said he got some satisfaction from incremental achievements, like making a discovery, having it published in a peer-reviewed journal and steering it through trials with some glimmers of effectiveness. If he'd been an academic scientist, those accomplishments would have been sufficient to win raises, promotions and grant funding. But in the biotech industry, where the ultimate goal is to create a product that benefits human health and generates revenue, those interim steps don't matter as much. "Do I feel it was a waste? Yes, to an extent," Schroff said. "Did I do my best and walk away with my head held high? Yes."

Stewart Lyman, a Seattle-based biotech consultant, said that when he was director of research collaborations at Immunex, he tacked famous quotes on his door to keep a balanced perspective. One from abolitionist leader Frederick Douglass read, "If there is no struggle, there is no progress." From the author Elbert Hubbard: "Do not take life too seriously; you will never get out of it alive."

Executives face a challenge in keeping workers motivated after a high-profile bust, Lyman said. At Immunex, he said, management's attitude was, "We tried something, it didn't work, [but] tomorrow is another day." So long as the company had other viable

programs to fall back on and didn't need to slash jobs, the workers bounced back, Lyman said. Immunex researchers had to refocus after its drug Enbrel failed in its first big trial as a sepsis treatment. But when the drug got a second chance, in rheumatoid arthritis, it succeeded, and the company thrived.

The less-graceful style, Lyman said, is to make excuses, blame others or try to spin negative results into a positive. Sometimes management will say, "The FDA didn't understand it" or "We just didn't have enough resources" or "The clinical people screwed up." If management ducks the question of layoffs, morale plummets even more. Resumes, especially for talented workers, will go out the next day, Lyman said. But if management handles the failure skillfully and can salvage something from the research, lessons can be learned that enable committed scientists to come closer to success the next time around.

"When you're trying to do something extraordinarily hard, people fail all the time," Lyman said. "If you're not failing, you're not trying to push the frontiers of knowledge."

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