



Arpad Pusztai – an honest scientist

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Arpad – an honest scientist

- I first met Arpad and Susan in Liverpool in 1996.
- They had come at the invitation of Prof Jonathan Rhodes to give a Faculty Lecture on lectin biochemistry
- Our friendship was immediate from the moment we met

Lectin research with Prof Jonathan Rhodes

- Kelsall A, Fitzgerald AJ, Howard CV, Evans RC, Singh R, Rhodes JM, Goodlad RA (2002). Dietary lectins can stimulate pancreatic growth in the rat. *International Journal of Experimental Pathology* **83**: 203-208.
- This research was under way when the GM potato furore happened in 1998.
- Jonathan was interested in the epidemiology of pancreatic cancer in Japan,. He had noted that the rapid increase in the incidence of pancreatic cancer was contemporaneous with the rapid change in Japan from a traditional diet to a westernised diet. This included the introduction of peanut butter.

1998 – GM potatoes and a cause celebre

- Arpad's research group was one of over 20 that applied for £1.6 million Scottish Office funding to investigate the properties of lectin introduction into GM potatoes, working as a Senior Scientist at the Rowett Research Institute.
- He was recognised as an international authority on lectin biochemistry, with over 250 publications and 3 books on lectins.
- I assume that all the applications went through a thorough peer review process – examining the proposed methodology and aims of the research. Arpad's group were awarded the grant.
- Arpad told me that when he embarked on the research he didn't expect to find anything in the animal toxicology testing.

The 22 scientists and the Memorandum

- An international panel of 22 scientists from 13 countries were invited to review Puztai's data and compare their findings with the conclusions in the Rowett Research Institute Audit Committee Report that "that his data were "too inconsistent" to support his conclusions.
- Dr. Vyvyan Howard, told the World Socialist Web Site, "I am working on some features of lectin toxicity and that is how I came to know Arpad Puztai, who is certainly one of the world's experts in this field." Dr. Howard said that he believed Dr. Puztai's data were sound. "We think it would pass peer review and be published and we are at a loss to really explain why the Rowett Institute came to the conclusion it did." Dr. Howard added that Puztai's findings "are of considerable importance in the current debate on the safety and hazard assessment of genetically modified foods".

Guardian:Top researchers back suspended lab whistleblower

- **Dr Vyvyan Howard:**'An objective review of the data from these experiments leads to the conclusion that the consumption of GNA-GM potatoes [modified with a snowdrop lectin] in rats has led to significant differences in organ weight and lymphocyte responsiveness. Further work should be undertaken to elucidate the meaning of these findings.'
- 'A major problem with the [audit] report is that the authors have been selective with the data they have included, which makes an objective appraisal of their conclusions impossible from solely reading the audit report. I have the impression it was hastily compiled and systematically biased towards brushing aside your experimental finding.'
- 'It is urgent that the full data from these experiments should be brought into the public arena and debated. Your findings are of considerable importance in the current debate on the safety and hazard assessment of genetically modified foods.'
- **Professor Ronald Finn:**'At the very least they should have concluded that there may be an immunological effect. The full data should now be discussed.'
- **Professor Jonathan Rhodes:**'The conclusions drawn [by the audit report] from the facts are biased to an extent that in my opinion would not be deemed acceptable if subjected to peer review as for a scientific journal.'

Lancet publication – vindication?

- Ewen SW, Pusztai A. (1999) Effect of diets containing genetically modified potatoes expressing Galanthus nivalis lectin on rat small intestine. Lancet 354:1353-4.
- Arpad said that this must have been the most intensely reviewed paper in the history of science. 5 out of 6 reviewers recommended publication
- The publication of this paper showed how wrong the Royal Society report, which castigated Arpad's research, actually was. He never received an apology for their inexcusable treatment of an honest scientist who was doing his job.