

Insecticide Causes Mad Cow Disease

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Reprinted from eionews.com, email - news@eionews.com

Pharmaceutical interests in the UK are ignoring new scientific research that shows the insecticide used in the UK government's own warble-fly campaigns triggered the UK surge of 'Mad Cow' disease.

Latest experiments by Cambridge University prion specialist, David R. Brown, have shown that manganese bonds with prions. Other researchers work shows that prions in the bovine spine -- along which insecticides are applied -- can be damaged by ICI's Phosmet organophosphate(OP) insecticide -causing the disease.

British scientists have led the current theory that an infectious prion in bonemeal fed to cattle causes bovine spongiform disease (BSE).

Infectious prions are also claimed to cause new variant Creutzfeld-Jakob Disease (CJD) in humans - from ingesting beef. But the infectious prion theory serves to obscure a tragic chemical poisoning scandal behind the majority of BSE cases.

The new work proves that the prions can bond with manganese in animal feeds or mineral licks. These manganese prions cause the neurological degeneration seen in BSE. **By a similar process, prions in human brains are damaged by lice lotions containing organophosphate. This can result in neurological diseases like CJD and Alzheimers -later in life.**

Many might be surprised to hear that organophosphates were developed by Nazi chemists during the course World War Two, as a chemical weapon nerve agent. One formulation of the insecticide -- Maneb, or Mancozeb -- actually contains manganese in addition to organophosphate.

The marginalized research has devastating financial implications for ICI. It would provide a firm basis for litigants -who could include CJD sufferers, farmers across the world and families of the many British farmers who committed suicide during this BSE debacle.

Phosmet organophosphate has been used at high doses in British warble fly campaigns. In 1996, ICI subsidiary Zeneca sold the phosmet patent to a PO Box company in Arizona called Gowan -just one week before the UK government admitted to a link between BSE and nvCJD.

The politically well-connected British pharmaceuticals group, ICI has the financial and political clout to block research into any cause other than the infective model. Indeed no substantive alternative research has been done. British BSE disease management and research bodies have taken decisions that do not seem guided by spirited scientific enquiry. Mysterious prions that jump species is the preferred research arena.

Scientist and organic farmer, Mark Purdey gave evidence to the UK BSE inquiry, that warble fly insecticide was the cause of the disease. The scientist wheeled out to rubbish Purdv's evidence -Dr.

David Ray, later turned out to have been receiving funding from the insecticide manufacturer ICI.

A lobby group that includes Bayer, Monsanto, Novartis, Pfizer, Roche and Schering-Plough was behind the effort to discredit Purdey. In December 1999, the same David Ray was appointed to the UK Veterinary Products Committee (VPC) -a government body that licences animal medicines.

Purdey has been consistently denied even exploratory funding to extend his privately supported research. Yet the Purdey/Brown chemical poisoning model matches with the epidemiological spread of CJD clusters in humans. It also predicts the incidence of BSE-type diseases in animals. The accepted infectious model fits neither.

The pharmaceutical industry is all the more determined to hide the chemical source of BSE and CJD, because a spotlight on chemicals would expose the role the insecticides in Alzheimer's -- another neurodegenerative disease -- that might lead to claims which would dwarf those from BSE and CJD litigants. In fact, two leading brain researchers into CJD and Alzheimers have died in suspicious circumstances in recent years.

In the United States, the Environmental Protection Agency is already reviewing Phosmet's safety. The Centers for Disease Control in the US has recently conducted experiments on mice that confirm the organophosphate risk.

Not only is the EC beef slaughter campaign futile -because BSE disease is mostly non-infectious, but unless the underlying chemical cause is addressed, BSE will simply reappear from chemical causes. A new warble fly campaign is already underway in France using the organophosphate insecticide.

Of greater concern is that some lotions for scabies and head lice are now priming children and adults, for CJD and Alzheimers in later life.

Bonding The Prion

Cambridge University prion biochemist, David R. Brown is dismissive of the science behind the infectious model of BSE. He terms it "a very limited amount of science by a few assumed- reputable scientists." He insists there is "no evidence an infectious agent is present in either meat or milk."

"Simple tests on udder walls of cows -- which could easily detect an infectious prion -- have not been done, why I don't understand."

A number of researchers have found that organophosphate(OP) in systemic warble fly insecticide can deform the prion molecule, rendering it ineffective at buffering free radical effects in the body. Worse still, the prion is then partial to bond with manganese and become a 'rogue' prion. A chain reaction whereby rogue prions turn others to rogues also, can explain the bovine spongiform disease mechanism.

Brown showed how prion protein bonds benignly with copper, but lethally with manganese. Even natural variations in relative environmental availability of manganese versus copper can trigger prion degradation.

The CJD and BSE symptoms mirror '**manganese madness**'. an irreversible fatal neuro-psychiatric

degenerative syndrome that plagued manganese miners in the first half of the last century

Shining a Light on Spongiform

Organic dairy farmer and peer-review-published independent scientist, Mark Purdey, says the accepted theory of transmission from BSE-infected cattle to human CJD -by bonemeal or meat, is dependent on a mutant prion that has never been isolated under the scientific protocol called Koch's postulates.

Purdey's insistence on sticking to the letter of this scientific law earned him the condemnation of UK officialdom when he first mooted his theory. But Purdey pointed to CJD clusters downwind of a British Phosmet production plant to back his case.

He gave evidence to the UK Government BSE inquiry and was supported by Conservative MP, Thessa Gorman. His views were discounted, but his subsequent research and the new Cambridge prion work have confirmed the alternative theory. Despite this, and the backing of a British peer, he is denied even exploratory funding.

Speaking from his rural English Somerset farm yesterday -as plans forge ahead for the European cattle cull, he asks:

"Why does CJD degeneration in humans begin in the retina, and why are CJD disease clusters found in high altitude locations?"

The question is rhetorical, and Purdey has an eye-opening answer. He argues that the **prion molecule has a known natural role as a shock adsorber of damaging energy from ultraviolet rays and other oxidizing agents.**

Once this prion defence system is rendered ineffective by organophosphates - for example in human head lice lotions, these oxidizing effects have an unmediated impact on tissues. Eventually, UV radiation damages the retina and oxidative stress destroys the brain tissues of CJD patients. This theory would expect to find higher CJD incidence in mountain regions -where UV radiation levels are elevated. That prediction holds true.

A similar but accelerated mechanism could be driving BSE. ICI's Phosmet organophosphate warble fly insecticide -applied on the backs of animals along the spinal column, similarly degrades prions. "Systemic versions of the insecticide are designed to make the entire cow carcass toxic to warble fly," explains Purdey. "Unfortunately it's toxic to prions too -especially those prions located just millimeters from the point of application."

The damaged prions are then ready to react with manganese in animal feed, or manganese sprayed on land or in mineral licks -to become the driving force of BSE neurodegeneration. Purdey says manganese-tipped prions set off lethal chain reactions that neurologically burn through the animal.

Chickens notoriously excrete most of the supplements fed to them -including manganese. And their manganese-rich excreta have been blended into cattle feed in the UK. Natural variations in the relative environmental availability of copper and manganese can also spur prion degeneration says Purdey.

From this research, any prudent person would conclude there is a significant risk attaching to the use

of organophosphate in humans. **Preparations for head lice and scabies are known to be overused in practice and might be priming users for CJ disease.**

Purdey believes his bias for field work is the key to his success. He bemoans the "reductionism" of much lab-centered science. "I have traveled the world to investigate known clusters of spongiform disease -something mainstream researchers don't seem remotely interested in doing."

Since first postulating an environmental -rather than infectious- theory of spongiform diseases, Purdey has built evidence from around the world that explains and predicts the incidence in humans and animals: a cluster of CJD in Slovakia, Eastern Europe -around a manganese plant; Rocky Mountain deer with Chronic Wasting Disease (CWD), who were found to be eating pine needles rich in manganese; the futile slaughter of sheep in Cyprus -only for BSE to reemerge within years.

"The reappearance of BSE in Cyprus obviously points to an environmental cause," says Purdey, who is sanguine when reflecting on the condemnation of him by mainstream scientists.

"I suppose they have mortgages and kids who need to go to university," he muses. "Privately, some were agreeing with me, but then they would denounce me publicly. It was quite strange really."

The Money Trail

Critical scientists like Purdey are unlikely to prevail. The pharmaceutical industry holds most research purse strings, and would hardly energetically explore an avenue of research that could expose them to litigation for causing BSE. The official theory is lavishly funded, alternative theories rarely, if at all.

There are more explosive implications to his -and other's latest research. Purdey says similar organophosphate-induced protein deformation could also underlie Alzheimer's disease. If that were true, the litigation fallout would destroy some pharmaceutical giants, and a lot of very influential noses would be out of joint.

Disturbingly, Purdey and other brain researchers seem to have had an undue share of unfortunate accidents. Purdey's house was burned down and his lawyer who was working with him on Mad Cow Disease was driven off the road by another vehicle and subsequently died. The veterinarian on the case also died in a car crash -locally reported as: 'Mystery Vet Death Riddle.'

Dr. C. Bruton, a CJD specialist -- who had just produced a paper on a new strain of CJD -- was killed in a car crash before his work was announced to the public. Purdey speculates that Bruton might have known more than what was revealed in his last scientific paper.

In 1996, leading Alzheimer's researcher Tsunao Saitoh, 46 and his 13 -year-old daughter were killed in La Jolla, California, in what a Reuters report described as a "very professionally done" shooting.

What Alzheimer's Disease, Mad Cow Disease, and CJ Disease have in common, is abnormal brain proteins and a putative link to organophosphates. Even Gulf War syndrome among returning veterans has been attributed, in part to the insecticide. But the sidelined scientists' suspicions are still largely ignored.

In their favour at the moment, is a growing unease on the part of the public. As BSE forges on and Governments panic, Science may be out to lunch on BSE, compromised by bovine spongythinking myopathy.

Do Not Use Systemic Organophosphate Insecticides

Do NOT treat children with OP head lice products - they may cause CJD and Alzheimer's

Do NOT treat your pets with OP anti-flea products

Do NOT treat cattle or animals with OP products - they may cause BSE

Do NOT give manganese to cattle previously dosed with a systemic OP

The relative availability of the metals copper and manganese in you local environment is a major factor in BSE & CJD

Useful Links

[EPA on Phosmet](#)

[BSE & CJD Researchers](#)

[Insecticides Classification](#)

[US Gov Pesticide resources](#)