neurodegenerative disease in the West? Researchers flocked to Guam, keen to find the answers.

But the island stubbornly refused to give up its secrets. Then, in 2002, Paul Cox, an ethnobotanist based in Hawaii, put forward a new theory. Writing with Oliver Sacks, he suggested that toxins from cycad seeds were being concentrated in the tissues of fruit bats, and were finding their way into people thanks to the local taste for the bats. In fact, their appetite for bats might also have been their saviour – local fruit bat numbers dropped so low that other species had to be imported, at just the time that the incidence of *lytico-bodig* began to drop.

Christopher Shaw, a neuroscientist at the University of British Columbia in Vancouver, Canada, went on

broken down within the cell.

Cox's ideas continue to divide opinion. "You're allowed to speculate but come on – don't confuse real science with imagination," commented Shaw. "Certainly there are people who think this is so far out," acknowledges John Weiss, a neuroscientist at the University of California, Irvine. "My tendency is to give the exciting idea the benefit of the doubt and test it."

References

1 **Miller G. Neurodegenerative disease. From cycad flour, a new suspect emerges. Science 2006;313(5786):431.**

2 **Cox PA et al. Diverse taxa of cyanobacteria produce beta-N-methylamino-L-alanine, a neurotoxic amino acid. Proc Natl Acad Sci USA 2005;102(14):5074–8. Erratum in: Proc Natl Acad Sci USA 2005;102(27):9734.**

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Did you really see it?

New research explores the neurological basis of poor witness statements and hallucinations.

Imagine that you're shown pairs of words, such as 'bacon and eggs' or 'rock and roll', or just one word of a pair, such and 'Laurel and…' and you have to think of the other word. If asked to remember which words you'd seen and which you'd imagined, it should be straightforward, one would think.

But a UCL study, using this test, found that in a fifth of cases volunteers either thought they had imagined words that they had actually been shown or said they had seen words that in fact they had just imagined.

Furthermore, brain scans showed that the brain areas activated while remembering whether an event really happened or was imagined were the same areas that are dysfunctional in people who experience hallucinations.

The researchers point out that most of us have a critical reality-monitoring function so that we are able to distinguish well enough between what is real and what is imagined. So our imagination does not have too great an impact on our lives – unless the reality-check system breaks down, such as after stroke or in cases of schizophrenia.

Simons JS et al. Discriminating imagined from perceived information engages brain areas implicated in schizophrenia. Neuroimage 2006;32(2):696–703.