

## A surgery of suppositions

I've got a lovely bunch of cocoanuts  
There they are all standing in a row

Fred Heatherton, 'I've got a lovely bunch of cocoanuts', 1944

A colleague who completed his PhD at Oxford University in the 1960s once told me that many Oxford academics treated scientific ideas as a coconut shy. They put up hypotheses then invited postgraduate students and other staff to try to knock them down. This was, he argued, a way of making quick scientific progress and generating a healthy list of research publications.

At the time I was disinclined to believe him but in later years I began to see what he meant. Professor Ernie Gould at the Institute of Virology and Environmental Microbiology in Oxford seemed to fit that mould. He maintained a keen interest in what goes on in the wider world of virology and put ideas together in new ways to create interesting possibilities and ideas to explore. Because of this, it was perhaps inevitable that he became central to the group of scientists in Britain who were studying RHD, bringing together field biologists and epidemiologists including Drs Roger Trout and Brian Boag, and molecular biologists like Dr Naomi Forrester.

This promoted a much broader understanding of RHD in Britain than had previously been possible, though not without some tensions arising in reconciling information gathered by team members who had different backgrounds and experiences in dealing with the disease. Also, the obvious academic benefit of being at the forefront of research brought with it the risk that hastily raised ideas may not always stand up to rigorous testing. They could be knocked aside by other researchers, leaving a lot of 'coconuts' to pick up. If playing that game, it is important to argue the case strongly but avoid becoming too emotionally attached to a pet hypothesis or idea.

Dr Stephen Moss was the lead author of a paper written by this Oxford group that argued that RHDV could not have suddenly appeared or 'emerged' at the time of its first description in China in 1984 (Moss *et al.* 2002). Soon after the virus was first described and sequenced, other virus variants were rapidly discovered, and their diversity suggested that the virus was not a new kid on the block. It had apparently been diversifying for some time. There were other problems. Viral RNA could often be detected in tissues from rabbits with antibodies to RHDV, and sequencing showed that this RNA was essentially identical to that of viruses obtained from rabbits that had died. However, instead of the simple explanation that some rabbits naturally survived RHDV infection and retained traces of the virus in their tissues, they suggested that the virus may sometimes be pathogenic and at other times non-pathogenic. In the same year a computer simulation of the epidemiology of a virus with both virulent and non-virulent spread was published (White *et al.* 2002), and by 2004 the group