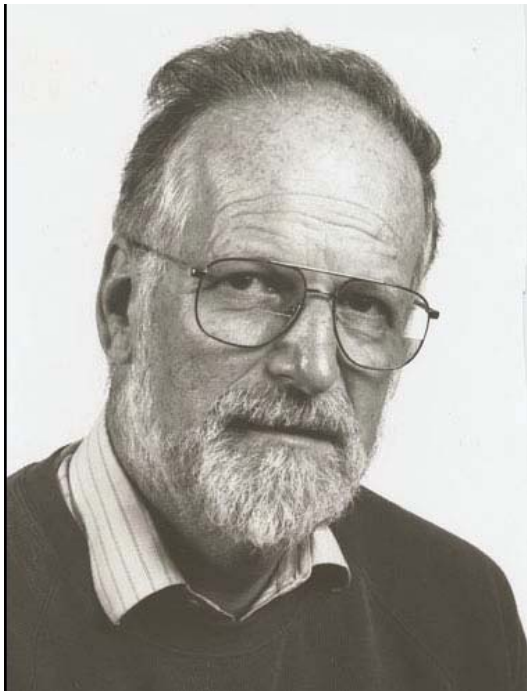

**Dr. David Kelly**
**1944-2003**

David Kelly, a long-standing member of the Society, was found dead in woodlands near his home in the Oxfordshire countryside on Friday 18 July 2003. David's distinguished contributions to insect pathology between 1968 and 1988 have scarcely been referred to in the national and nternational furore that has surrounded his suicide, and its association with the recent war in Iraq. hope to help remedy that omission.

David (who was frequently known as Dai to his friends) was born and brought up in the Rhondda Valley, Wales. During his school days, he ran crosscountry for Wales at junior level, and acquired a lifelong love for Rugby Union Football. He started his higher education at the University of Leeds, where he was awarded a BSc in Microbiology, and met Jan, his wife-to-be. Both David and Jan moved on to Birmingham where David took a one-year MSc course in Virology, and Jan completed her teaching qualifications.

I first met David in October 1968, when we started our DPhil's on the same day, in the Unit of Insect Pathology, Oxford, under Tom Tinsley's supervision. We soon developed a family friendship that has continued for 35 years. David's DPhil research concentrated on the insect iridescent viruses (IIV). Although Kenneth Smith and Nick Xeros had been the first to identify and characterise the morphological properties of IIVs, David's research added a considerably improved understanding of these viruses and their taxonomic relationships, through his studies on their biochemical properties and replication. Having successfully obtained his DPhil, David moved to the University of Warwick for two years where he worked as a post-doc on influenza virus. However, insect viruses clearly remained a fascination for him and, when the opportunity arose to rejoin the Oxford group in 1974, David keenly returned.

The early 1970s was a wonderful time for research on insect viruses in the UK; the Oxford group was flourishing under Tom Tinsley's leadership and had received substantial recognition from the Natural Environment Research Council (NERC), leading to the group becoming the NERC Unit of Invertebrate Pathology (later still to become the NERC Institute of Virology and Environmental Microbiology). In addition, the group had hosted the 1973 SIP Conference and had established its international credibility in the field of insect pathology. Finally, research income in those days did not come encumbered with the need for innumerable project proposals, milestones and reports, and research management was able to provide a freedom of approach along the lines of "here's an interesting virus, go away and do something useful with it".

David took full advantage of these freedoms in a most positive way. In the period between 1974 and 1984, he was amongst the first scientists to study biochemical aspects of baculovirus eplication in cell culture, leading to an important series of publications in the late 1970s and 1980s on baculovirus infection sequence, protein synthesis, viral DNA infectivity and the induction of baculovirus infections in persistently-infected cells. His last refereed publication on baculoviruses (jointly with Bob Possee), in 1988, was on the genome mapping and relationships of *Mamestra brassicae* and *Panolis flammea* NPV genomes. He also collaborated extensively with other scientists in the Unit, including Hugh Evans and Philip Entwistle, who were interested in having biochemical markers for virus identification as part of their epizootiological studies. David also continued to publish on insect iridescent viruses and developed an interest in the characterisation and taxonomy of insect parvoviruses, in collaboration with Norman Moore.

In 1984, David decided that it was time to move on, and he applied for and was appointed to the post of Head of Microbiology within the Ministry of Defence's establishment at Porton Down, in 1984. His first publication in this new role was a popular article in New Scientist, on anthrax spores, coinciding with his new responsibilities for overseeing the decontamination of Gruinard Island, Scotland, which had been the site of experiments on anthrax in the Second World War. He also published several papers on the molecular biology of other bacterial toxins, and the high-level containment facilities available to his team enabled him to lead research on the characterisation and diagnosis of simian Herpes B virus (almost always fatal in humans).

By the late 1980s, David was emerging as the UK national expert on viruses and microorganisms that had potential application as biological weapons. In 1989, he was co-opted to assist in the MI6 debriefing of a soviet defector, Vladamir Pasechnik, and entered that part of his career that has become the subject of widespread public debate. The debriefing of Pasechnik revealed the existence of a major Soviet biological weapons programme. In 1991, David was co-leader of a UK/USA delegation to investigate biological weapons establishments in the Soviet Union. David was instrumental in revealing an ongoing programme of work on smallpox virus that was being carried out in contravention of international agreements. After the eviction of the Iraqis from Kuwait, David became a senior adviser on biological weapons to the UN biological weapons inspection team (UNSCOM) between 1994 and 1998, and was instrumental in the discovery and supervision of the dismantling of several biological weapons establishments in Iraq, during a total of 36 visits to that country. Colleagues who worked with him during that period have described him as the complete professional, the leading international expert in his field, scientifically indomitable and with such an eye for detail that nothing got past him. The national importance placed on his skills was recognised by the UK Government in 1995 with the award of the CMG (Commander of St Michael and St George, or "Call Me God" as it is known colloquially).

Following Saddam Hussein's refusal to allow weapons inspection visits to Iraq in 1998, David remained an employee of the UK Ministry of Defense and was seconded to the Foreign Office as an expert adviser on biological weapons. He also traveled widely in North America and Europe,

lecturing and running training seminars on biological weapons. When anthrax was detected in some letters posted in the US, shortly after the events of nine-eleven, David renewed acquaintance with some of his SIP contacts, including Denis Burges, to discuss issues surrounding the formulation of *Bacillus* spp. After the 2003 Iraq war, he made one post-war visit to Iraq and was keenly awaiting the go-ahead to return again, shortly before his death.

I doubt if the life of any former member of the SIP has been scrutinised in such public detail, following their death, and I do not intend to add further to the political agenda on this topic. However, in one of the innumerable websites established after David's death, Keith Harrap, another former colleague of both David and I at Oxford, summed up the feelings of many of us: "…I feel a mounting sense of anger at the way he (David) seems to have been treated. Professional scientific advisors of integrity should not be treated as pawns in political games in this overt way". Whatever the outcome of the Hutton Inquiry into the reasons contributing to David's death, David's friends and colleagues in the Society will remember him as a distinguished microbiologist and insect pathologist. He was a regular contributor throughout his career to Society meetings and publications as well as to International Virology Congresses and to Virus Group activities in the Society for General Microbiology. I will remember David as a loyal friend, someone who could be a private person and yet convivial in company, with a gentle sense of humour. He was passionate about his job, Welsh Rugby, and playing cribbage for the Hind's Head in Kingston Bagpuize. He gained great enjoyment from his house and garden, and always grew better cauliflowers than I could. Most of all, he enjoyed the company, love and friendship of his wife, Jan, and his beloved daughters, Sian, Ellen and Rachel.

*Chris Payne*

When David Kelly contacted me in the aftermath of the attack of nine-eleven, we were acquaintances rather than friends. We had some excellent chats about the possibility of *Bacillus thuringiensis* being used as a model for the production of *Bacillus anthracis*. Later I sought his opinions/help about queries in similar vein from other directions. He was always helpful and undertook to forward information and comments to appropriate destinations. I acquired a great respect for his knowledge and astuteness. I now have the honour of regarding him as a friend.

*Denis Burges*