

The origin of AIDS: can science afford to ignore it?

Discussion Paper
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National Academies Forum
Canberra,
November 29, 2000

Abstract:

There is a crisis of public faith in science and scientists. Recent research shows concern over scientific ethics, transparency and who benefits from R&D, exemplified in the GMO debate. Scientific discussion of the polio vaccine hypothesis for the origin of AIDS has been systematically suppressed for more than twelve years. The author calls for an international multidisciplinary inquiry into the origin of AIDS, arguing it is essential to human health, prevention of new pandemics, and to protect the integrity of science in the eyes of the public.

(Slide 1: title)

The jury is still out on how humanity came to acquire the disease known as AIDS. Indeed, the trial has not even convened.

For, despite the fact that AIDS was first identified some 20 years ago, there has been little serious scientific investigation of how the most lethal plague of modern times entered our species.

Today, if a person dies in unexplained circumstances, medical and forensic scientists expend enormous effort to find the cause and trace its origin.

With fifty million humans dead and dying from a disease whose emergence is unexplained, how can one account for the scant international scientific interest in the origin of this catastrophe?

(Slide 2: origin hypotheses)

That AIDS may have started with an experimental polio vaccine used in Central Africa is one of several possible explanations. And, despite the assertions of its critics, it is supported by more scientific evidence than any competing theory. One would think that would justify a serious look.

Instead, the scientific world has dealt with this hypothesis with personal attack, with refusal to discuss or publish, with libel suits and threats. But almost never with science.

(Slide 3: responses to OPV theory)

Louis Pascalⁱ first presented the oral polio vaccine hypothesis of the origin of AIDS in 1987. It was circulated to leading researchers and journals in the field. It was ignored or rejected – except by the *Journal of Medical Ethics* which said it was “important and thoroughly argued, and ought to be taken seriously by workers in the AIDS field.”ⁱⁱ

In 1989 two South African scientists, Lecatsas and Alexander, were vitriolically criticisedⁱⁱⁱ for proposing that SIV may have passed to humans through the medium of monkey kidney used to produce vaccine.^{iv}

From 1991 to '94, Americans Elswood and Stricker sought without success to publish a well-referenced paper on the hypothesis in the mainstream scientific literature.^v

In 1992 US investigative journalist Tom Curtis published a well-researched piece in the magazine *Rolling Stone*.^{vi} He was disparaged by top scientists in both the scientific and general media^{vii}. He and his journal were sued for libel.^{viii}

The hypothesis was rejected, without serious examination, by leading researchers in America and in the World Health Organisation^{ix} and by various science writers.^x

Associated Press of America, which reported the Curtis article, was sued for libel in a litigation that dragged on for years.^{xi}

The late Professor Bill Hamilton, a very eminent Oxford biologist, sought to publish letters commenting on the OPV hypothesis in *Science* and *Nature*. He was rejected by both.^{xii}

There are many open-minded scientists who deem this hypothesis plausible^{xiii}. Yet none so far has dared investigate it fully, possibly for fear of the impact on their career, their funding or the condemnation of their peers.^{xiv} (Indeed I have spoken with one senior scientist whose research funds were terminated for merely mentioning the idea in a journal letter.)

In 1992, the Wistar Institute convened a scientific inquiry into the question of whether HIV might have been passed in one of its early vaccines. Its most important findings have not been adopted.^{xv}

Ed Hooper, in the course of his investigations for *The River*, was threatened with the law^{xvi}, and has suffered personal attack.

The Royal Society met in London in September to examine theories for the origins of HIV/AIDS. Instead, the meeting turned out to be a carefully orchestrated attack on Hooper – not the dispassionate scientific discussion of alternate theories originally proposed by Prof. Hamilton. For one thing it did not include as speaker a single one of the *scientists* who consider the OPV theory plausible.

Although *no* evidence of a scientific character was produced at the meeting to invalidate OPV theory this did not stop at least one eminent researcher claiming afterwards “There are now compelling data to refute OPV as the cause of AIDS”.^{xvii}

What I have described is *not* in the nature of a conspiracy. But it certainly amounts to a systematic endeavour to suppress public discussion and scientific inquiry into this important hypothesis and to discredit its proponents, over more than 12 years.

There is a striking historical irony. In the 1960s and 70s, scientists entertained and investigated the hypothesis that poliovaccine contained a monkey virus, SV-40, which was unintentionally injected into tens of millions of people worldwide.^{xviii} A virus now linked to various lethal brain, lung and bone cancers.^{xix}

Yet in the 1990s and 2000s, it has not been possible to explore a parallel hypothesis without incurring abuse, censorship and litigation. What has changed?^{xx}

(Slide 4: Lords' report)

We live in an age in which public trust in science is at low ebb.^{xxi}

Throughout the western world, opinion poll after poll shows that the community's faith in, and respect for, science and scientists is diminishing.^{xxii}

The vogue for alternative healthcare, new age belief systems and pseudosciences is an outcome of the loss of confidence in modern R&D, its practitioners, managers and funding sources.^{xxiii}

The polls tell us that, while the public expects science to deliver benefits, they are more informed, critical and suspicious of how scientists conduct their business than in the past.^{xxiv}

(Slide 5: poll findings)

The word on the lips of the public today with respect to science is *ethics*. Public concern about the ethical practices of science is as deep as its concern for human and environmental safety.^{xxv}

At the root of public unease lies the fact that so much research now takes place behind locked doors and razor wire. Much research is commercial-in-confidence, intended to benefit powerful globalised corporations.

The scientific community, in its struggle to maintain funding and to engage the private sector, is pawning one of its most priceless attributes – its reputation for dedication to the public interest, at least in the eyes of the public. And that’s what counts.

This is not to say that what science does is wrong. Merely that the public now believes that scientists are serving, secretly, large global corporations whose interests do not necessarily match, and may conflict with, those of the local community.^{xxvi}

Gene technology is an example of this trend. There is widespread suspicion and concern and an almost universal cry from the public that “we have not been told what it all means”.^{xxvii}

The better-informed public point out that scientists have been swift to sell the purported glories of transgenics, and reluctant to acknowledge possible risks or downsides.^{xxviii} Rarely have scientists bothered actually to ask the public what it is that *they* want from the technology. So nobody should be astonished that the public is shy of the technology.

The treatment by science of the OPV/HIV hypothesis is a fresh case in which the medical research community has been reluctant to explore the facts on an issue of the first importance to human health.

(Slide 6: TWD)

In my own book I presented 17 arguments favouring the hypothesis and 14 arguments against it. I also proposed an easy way to falsify the hypothesis. The proper course is to examine and test the idea on its merits, and to do so using scientific data, not recourse to law.^{xxix}

So far there has been no serious attempt to test this hypothesis scientifically or even, as Brian Martin^{xxx} has argued, to determine on which theory the burden of proof truly lies. Until this is done the public has a right to suspect that science is refusing to face unpalatable possibilities. Let me illustrate this.

Humans, hominids other primates have some two million years of predatory interaction^{xxxi}. Yet adherents of the “monkey hunter” theory insist the transfer occurred in recent times, through hunting of a particular subspecies of chimpanzee, *P.t.troglodytes*, which is confined to a home range in Cameroon/Gabon.^{xxxii}

(Slide 7: OPV/HIV sites)

Virtually all of the world's earliest cases of HIV/AIDS occurred a thousand miles or more to the east in the eastern Congo basin, the Great Lakes region or else in the Congo capital, Kinshasa.

The number of early AIDS cases known from the region in which these scientists argue the transfer from primate to human actually took place, is *zero*.

It is probable that the earliest AIDS cases arose in the towns and districts where the disease first entered humans – and not hundreds of miles distant, across one of the greatest rivers on earth, as today's "monkey hunter" theorists propose.

This was supported this month by an important new scientific paper which concludes, from genetic analysis of subtypes, that the HIV-1 pandemic *almost certainly arose in the Congo*.^{xxxiii}

Ed Hooper has shown there is a powerful coincidence both in place and time between polio vaccination events and early cases of HIV/AIDS^{xxxiv}.
(Slide 8: KS incidence)

Richard Middleton^{xxxv} has shown there is a powerful coincidence between the 1950s vaccination areas and a sixfold increase in Kaposi's sarcoma in Central Africa in the 1960s.

Adherents of the monkey hunter theory have sought to distance it in place. Their recent work represents an attempt to distance it in time.^{xxxvi} Both are based narrowly on the discipline of genetics, and lack balancing input from other branches of science.

I have dwelt on the loss of public faith in science. Unless scientists are prepared to go into this issue objectively and transparently, it will damage the standing of science in the eyes of the community.

Bill Hamilton once said: "In the face of overbearing professional mystique, disregard and now, even litigation, the public becomes justified in its disillusion with science, and in some of its deepest fears."^{xxxvii}

If AIDS is iatrogenic, through an honest mistake, science may be forgiven. But if it seeks to bury the idea, first, it will fail and second, it will destroy public trust.

As Hamilton once foretold: “Th(is) hypothesis is certainly not going to go away”.^{xxxviii}

(Slide 9: open mind)

I here call for an independent, international, multidisciplinary investigation of the origin of AIDS, which treats the various theories on their merits and actively seeks valid data to sustain or refute them.

And I echo Bill Hamilton’s call to investigate why this hypothesis has been so poorly treated, and the pressures now accumulating upon scientists to marginalise or avoid research into issues which do not meet the approval of the funding complex.^{xxxix}

(Slide 10: why seek AIDS’ origin?)

Why is it important to know the origins of AIDS?

First, because the source of no great human catastrophe should go uninvestigated. It is essential we understand how to avoid such calamities in future.

Second, because understanding an origin sometimes reveals ways to solve the problem. Some scientists have already suggested the OPV hypothesis could assist in developing an effective AIDS vaccine.^{xi}

Third, because we must improve the safety of biologics worldwide. The one clear finding from this issue so far – that primate tissues be banned for making vaccine – has yet to be adopted.

Fourth, because other dangerous monkey viruses, as yet unknown to science, undoubtedly exist.

Acknowledging the possibility AIDS is iatrogenic will compel a far more cautious approach to animal organ grafts and other trans-species experiments.^{xii} Surely, we need not risk another 50 million deaths to grasp this?

And finally, for the sake of the integrity of science.

For the preservation of trust in it, in the eyes of the community

For its ability to do great good for humanity far into the future.

Footnotes:

ⁱ Pascal L., What happens when Science Goes Bad, University of Wollongong Science & Technology Analysis Program, working paper No 9, December 1991

ⁱⁱ Gillon R., *Journal of Medical Ethics* 18, 1992, pp3-4

ⁱⁱⁱ Shoub B.D., Dommann C.J., Lyons S.F., "Safety of live oral poliomyelitis vaccine and the origin of HIV infection in man", *South African Medical Journal* 77, 9 January 1990, p51.

^{iv} Lecatsas G and Alexander J.J., Safe testing of poliovirus vaccine and the origin of HIV infection in man, *South African Medical Journal* 76, 21 Oct 1989, p451. Also Lecatsas G., Origin of AIDS, *Nature* 351, 16 May 1991, p179. Also Alexander JJ, media interview, 7 Jan 1992.

^v Ultimately it was published in a journal specialising in marginalised ideas. See Elswood B. and Stricker R., Polio Vaccine and the Origin of AIDS, *Medical Hypotheses* 42, 1994, pp 347-54.

^{vi} Curtis T., "The Origin of AIDS: a startling new theory attempts to answer the question "Was it an act of God or an act of Man?", *Rolling Stone*, 19 March 1992, pp 54-61, 106-9.

^{vii} See *Science*, 20 March 1992 p1505; *Science*, 30 October 1992, p738; *Science* 26 November 1993, p1369.

^{viii} United States District Court for the Eastern District of Pennsylvania, Civil Action No 92-CV-7431, *Hilary Koprowski v. Straight Arrow Publishers Inc., Jann S. Wenner and Tom Curtis*.

^{ix} See Curtis T., op. cit. "*The origin of the AIDS virus is of no importance to science today. Any speculation as to how it arose is of no importance.*" a senior WHO AIDS spokesman told Curtis.

^x Among them distinguished names such as Lawrence Altman, Laurie Garrett, Tony Gould, Arno Karlen. See Cribb J., *The White Death*, Angus and Robertson 1996, p 231-233

^{xi} Court of Common Pleas, County of Philadelphia, October Term 1992, No. 4022, *Hilary Koprowski MD v. The Associated Press and Bruce Rule*.

^{xii} Hamilton W.D., personal communication, 7 February 1995.

^{xiii} Besides Hamilton, Lecatsas and Alexander, sworn affidavits testifying to the plausibility of the OPV/HIV hypothesis were also submitted by Melnick J., Ho D.D., Marx P., and Middleton R.B. to the Court of Common Pleas, County of Philadelphia, Case No 4022 *Hilary Koprowski v The Associated Press and Bruce Rule*.

^{xiv} Hamilton W.D., correspondence with Koshland D., editor of *Science*, 23 February 1994. "*Here in my own department I am finding people far better qualified to investigate than I am who say things like "Well. I can see the theory may have a case, but I'm afraid I can't touch any of that: our grant comes from the Medical Research Council..." or "Labs that could test what you want in Britain...all get money from the MRC or drug companies."*" Hamilton categorized this situation in science as "terrible for all mankind".

^{xv} Basilico C., Buck C., Desrosiers R., Ho D., Lilly F., Wimmer E., *Report from the AIDS/Poliovirus Advisory Committee*, Wistar Institute, 18 September 1992. Its principle findings were: that the OPV/HIV hypothesis is possible but unlikely. That early Wistar vaccine lots used in Africa should be tested for the presence of SIV or HIV, and that the use of monkey kidney as a culture medium for live poliovirus vaccines should be discontinued.

^{xvi} Hooper E., *The River*, Penguin 2000, pp 592-596. In January 1995 Hooper received the following letter from an attorney representing one of the scientists involved in the original vaccine trials: "*This letter is to put you on notice on behalf of all I represent that any publication that is scientifically unsound and therefore obviously defamatory in nature will be promptly pursued in the appropriate courts against you and your publisher.*"

^{xvii} Weber, J. Origins of HIV and the AIDS epidemic: Medscape Conference Summary.
<http://www.medscape.com/Home/Topics/AIDS/AIDS.html>

^{xviii} Shah K, Nathanson N., Human Exposure to SV-40, *American Journal of Epidemiology* 103, January 1976, pp1-12.

^{xix} (1) Yamamoto H., Nakayama T. et al., High incidence of SV-40 like sequences detection in tumours and peripheral blood cells of Japanese osteosarcoma patients. *Br J Cancer* 82(10), May 2000, pp1677-81. (2) Carbone M., cited in *New Scientist*, 24 August 1996, p16 "Polio vaccine linked to cancer". (3) Gamberi G. et al, *Genes Chromosomes Cancer* 2000, 28, pp 23-30. (4) Stewart AR, Lednicky JA, Butel JS., Sequence analyses of human tumor-associated SV40 DNAs and SV40 viral isolates from monkeys and humans. *J Neurovirol* 1998 Apr;4(2):182-93

^{xx} See comment by Alexander J., in Cribb J.H.J., *The White Death*, A&R 1996, p 228: "*Science in the 1960s was gentler, kinder and more honest. There is too much at stake today. There is so much money and politics involved in the whole issue of AIDS. It's a great big power-game, with scientists hanging onto their reputations....some are turning into pop-stars. Also sections of the medical profession feel threatened by such theories, because they are no good for the image of medicine. It has become a very jittery profession.*"

^{xxi} See UK House of Lords, Select Committee on S&T, 3rd report, 23 February 2000: “*Society's relationship with science is in a critical phase. Science today is exciting, and full of opportunities. Yet public confidence in scientific advice to Government has been rocked by BSE; and many people are uneasy about the rapid advance of areas such as biotechnology and IT - even though for everyday purposes they take science and technology for granted. This crisis of confidence is of great importance both to British society and to British science.*”

^{xxii} Ibid., “*There is, however, an apparent crisis of trust. While people appear to have an appetite for popular science, the paradox is that this is accompanied by increasing scepticism about the pronouncements of scientists on science-related policy issues of all types.*”

^{xxiii} Peter Pockley: “Science versus Counter-Science: An Agenda for the New Battleground”; T.G.H. Jones Memorial Lecture, Department of Chemistry, University of Queensland, Brisbane, Australia; 12 October 1995.

^{xxiv} Economic & Social Research Council of the UK, *The politics of GM food: Risk, science & public trust*, special briefing No 5, October 1999.

^{xxv} Evidence for this has emerged in several qualitative and quantitative analyses of public opinion conducted in Australia for CSIRO, eg Market Attitude Research Services, January 1998 and June 2000. On comparable issues, this research strongly mirrors findings from Europe and North America, making it possible such views are general in the western world. This remains to be confirmed.

^{xxvi} Swift J., letters, *New Scientist*, 17 June, 2000.

^{xxvii} On the need for more open consultation see OECD *GM Food Safety: facts uncertainties and assessment*, OECD Edinburgh Conference on the scientific and health aspects of GM foods. February/March 2000.

^{xxviii} The better informed the public is about science, the more suspicious they tend to be. See Gaskell G, Bauer MW, Durant J., Allum NC, ‘Worlds apart? The Reception of Genetically Modified Foods in Europe and the US, *Science* 285, 16 July 1999, pp384-387

^{xxix} Cribb J.H.J., *The White Death*, Angus & Robertson 1996, pp235-239.

^{xxx} Martin B., *The burden of proof and the origin of AIDS*, The Royal Society, September 2000

^{xxxi} Thackeray F., Transvaal Museum, personal communication, 27 July 2000: “*There is a case from studies of stable carbon isotope ratios of very small samples of hominid tooth enamel from Swartkrans, suggesting that both early Homo and Australopithecus robustus, were omnivores (paper in press, Journal of Human Evolution, by J. Lee Thorp, N.J. van der Merwe and Thackeray on this). Both australopithecines and early Homo were eating plants and animal protein in the Pleistocene between 1.7 and 1.5 million years ago. The hominids may have had various sources of protein including the meat of ungulates, at least some of which may have been scavenged from leopards and other carnivores. Certainly, leopards would have been eating baboons, and to my mind it is not impossible that hominids would have scavenged meat or bone collagen from primates killed by carnivores.*”

^{xxxii} Gao F., Sharp P.M., Hahn B.H. et al., “Origin of HIV-1 in the chimpanzee *Pan troglodytes troglodytes*”, *Nature* 397, 4 February 1999, pp 436-441.

^{xxxiii} Vidal N., Peeters, M., Mulanga-Kabeya C et al. Unprecedented degree of human immunodeficiency virus type 1 group M diversity in the Democratic Republic of Congo suggests that the HIV-1 pandemic originated in Central Africa, *Journal of Virology*, 74; 10498-10507

^{xxxiv} Hooper E., op. cit.

^{xxxv} Middleton R.B., affidavit, Court of Common Pleas, County of Philadelphia, 28 April 1997. It states: “*A comprehensive study of 500 malignant cases in Africa before 1950 revealed that only 10 (2%) were Kaposi's sarcoma. By 1961 the epicenter of the incidence of KS was in Eastern Zaire, exactly the same area where the polio vaccine trials were conducted, where more than 10% of all malignancies were KS (an apparent 500% jump from 1956 – 1961). In 1962 it was reported more than 12% of all malignant tumours in Zaire were KS, a 600% increase from pre-1957 studies.*” Middleton also pointed out how KS rates diminished steeply with distance from the epicenter, and that the pattern, not surprisingly, replicated that for the spread of HIV/AIDS.

^{xxxvi} See Korber B., Hahn B.H., Gao F., et al., “Timing the Ancestor of the HIV-1 Pandemic Strains”, *Science* 288, 9 June 2000, pp 1789-1796, which argues for an HIV crossover date of around 1931.

^{xxxvii} Hamilton W.D., cited in Cribb, op. cit, p210

^{xxxviii} Hamilton W.D., correspondence with Koshland D., editor of *Science*, 23 February 1994

^{xxxix} Hamilton W.D. personal communication to Cribb J.H.J., 7 February 1995, in which he says in response to my question: “*There should be an investigation by an international committee mostly composed of non medical people concerning how a rather obvious and plausible theory came to be scorned and restricted from publication for so long, especially when important consequences regarding mankind's worst epidemic, and even more important consequences for others possibly even worse that may be following, hang in the balance. As a corollary it should be studied why the hypothesis had to be promoted mainly by outsiders to science and medicine. The pressures towards investigation (and non-investigation) that emanate from huge drug companies and their influence in slanting research in subtle ways should also be examined, as should the role of journals and peer review in potentially obstructing publications of controversial kinds.*”

^{xl} Bagasra O., *HIV and Molecular Immunity*, BioTechniques Books 1999, p161

^{xli} For instance, Simian parvovirus was not in fact discovered until 1994, two years after experiments in which baboon organs were transplanted into humans. It is also noteworthy that it was subsequently found that the human recipients were infected by baboon retroviruses present in the donor organs. See Allan JS, Broussard SR, Michaels MG, Starzl TE, Leighton KL, Whitehead EM, Comuzzie AG, Lanford RE, Leland MM, Switzer WM, Heneine W. Amplification of simian retroviral sequences from human recipients of baboon liver transplants. *AIDS Res Hum Retroviruses*, 1998 July 1; 14 (10): pp 821-4

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