

Witness Name: Dr Abraham Karpas
Statement No.: WITN0684001
Exhibits: WITN0684002 - WITN0684016
Dated: 27-1-2020

INFECTED BLOOD INQUIRY

WRITTEN STATEMENT OF Dr ABRAHAM KARPAS

I provide this statement in response to a request under Rule 9 of the Inquiry Rules 2006 dated 23 November 2018, 26 September 2019, 22 December 2019 and 27 January 2020.

I, Dr Abraham Karpas, will say as follows: -

Introduction

My name is Dr Abraham Karpas. My date of birth is GRO-C 1937 and my address is known to the Inquiry. I am an expert in some aspects of Medical Virology, having trained first as a veterinary surgeon at Zurich University, completing my studies in 1963; later I received a doctorate in veterinary medicine.

After working for 6 months as a vet I took a position in a laboratory of Medical Virology at the Department of Microbiology of Geneva University Medical school. A year later I got a French Government Research Fellowship in Virology at the Institute Pasteur in Paris. Thereafter I held a postdoctoral research post in virology at Harvard Medical School in Boston, USA. Subsequently, I was an Assistant Professor to Dr Albert Sabin (developer of the oral polio vaccine) at the University of Cincinnati in the USA. In 1969 I moved to Cambridge to take up the post of Assistant Director of Research in the Department of Haematology at Cambridge University Clinical School. I held this post until October 2005, when I retired according to university statutes.

My published research was awarded a Doctor of Science (Sc.D) by Cambridge University in 1982 and I was subsequently offered membership of Trinity College and a fellowship at Wolfson College.

My Research and Expertise

The main aim of my research was to investigate the possible role of viruses in human leukaemia. My research strategy was to discover how to get leukaemia cells to survive and grow outside the body in tissue culture ("in vitro") indefinitely. I was the first in the UK and one of the first in the world to succeed in this, establishing numerous lines of immortal human leukaemia cells that grow indefinitely in the laboratory and are currently used for research in many laboratories around the world.

In 1983 I was the first in the UK/Europe to isolate the human T-cell leukaemia virus (HTLV) from a black patient in London (*Brit. J. Haematology* 58, 176, 1984; and thereafter *J. Gen. Virology* 95, 237, 1987; *J. Gen. Virology* 69, 1695, 1988). Professor Raymond Dwek, director of The University of Oxford's Glycobiology Unit, in a 1988 letter to Dr J Smith, director of the Public Health Laboratory Service (PHLS), highlights the significant contribution of my laboratory to AIDS research (exhibited as **WITN0684002**). HTLV virus was known earlier in Japan where it had been shown to be the cause of endemic Adult T-Cell leukaemia (ATL). Although probably a million Japanese are infected only 1% of those infected develop leukaemia. HTLV was also found in the USA to affect some individuals of African origin and thereafter ATL was diagnosed in a few black patients in the UK. To date it is the only virus known to cause leukaemia in man. Our 1988 paper contained the first complete nucleotide sequence of HTLV-1 outside Japan and the USA, revealing the sequence of my HTLV-1 isolate to be only 2.3% different from the Japanese, thus attesting the stability of the oncovirus subgroup of retroviruses, in contrast to the highly variable genomes of HIV. Those, belonging to the lentivirus subgroup, are always distinct from one another and can differ by more than 10%.

My early research also succeeded in developing a human T-cell line in 1973 from a child with T-cell leukaemia. Some ten years later it enabled me to isolate both HIV-1 and thereafter HIV-2, after those viruses were discovered in Paris. I was the first to isolate HIV-1 and HIV-2 in the UK.

A Lost Year of AIDS Research: Spring 1983 to Spring 1984

On 20 May 1983, a French team of researchers from the Institut Pasteur in Paris published a paper in the American journal *Science*, recounting their isolation and study of a new human retrovirus from AIDS patients and the likely involvement of that retrovirus in the development of AIDS. The article by Barré-Sinoussi F et al. is titled '*Isolation of a T-lymphotropic retrovirus from a patient at risk for acquired immune deficiency syndrome*' (*Science*, vol. 220, issue 4599, pp. 868-871). In the same issue of *Science* Dr Robert Gallo, from the National Institutes of Health (NIH) in the USA claimed that another virus, HTLV, which causes Adult T-cell leukaemia, was in fact the cause of AIDS. This was to cause world-wide confusion. The article by RC Gallo et al. is titled '*Isolation of human T-cell leukemia virus in acquired immune deficiency syndrome (AIDS)*' (*Science*, vol. 220, issue 4599, pp.865-867). Gallo's group published an additional paper headed by E P Gelmann: '*Proviral DNA*

of a retrovirus, human T-cell leukemia virus, in two patients with AIDS' (*Science*, vol. 220, issue 4599, pp. 862-865) further supporting the involvement of HTLV in AIDS.

In May 1983, the French team sent a second major research paper to the British journal *Nature*. The paper by David Klatzmann et al, the medical Immunologist at the La Pitie-Salpetriere Hospital in Paris, was a collaborative research with Institute Pasteur, referring to the tropism and cytopathic effects of their virus (which they called LAV). The article included further evidence that their new virus was indeed involved in the development of AIDS, showing that the virus preferentially infected and killed the CD4+ T-cells which are essential for the body's immune defence responses. The manuscript's excellent electron micrographs also revealed the characteristic morphology of the virus as having a bullet-shaped core that placed it firmly among the lentivirus subgroup of retroviruses, contrasting with HTLV's distinct round-shaped core characteristic of the oncovirus subgroup.

This definitive paper should have been and could have been published without delay: it provided convincing evidence that LAV/HIV was new; it reported the first lentivirus to infect man; and it explained why AIDS developed - this, at a time when AIDS was spreading rapidly and wild explanations flourished: homosexual lifestyle, use of recreational drugs, and even bizarrely, God's punishment of the homosexuals or a virus created by the CIA. As noted by Klatzmann himself in an email to me dated Wednesday, 8 May 2019, "*had this paper been published in summer 1983, it would have changed the way the scientific community looked at LAV as a causal agent of AIDS*". It would have hastened research on HIV and the development of a test.

It was rejected, however.

The competing claim for HTLV was unfortunately championed by Dr. Robert Gallo, a very high-profile researcher at the US National Institutes of Health, ferociously ambitious and unscrupulous, whose pre-eminent reputation in the field of AIDS research was at stake, and who had a close collaborator in Dr Robin Weiss, a virologist who provided referees in the field of retroviruses for *Nature*'s biological subeditor, Peter Newmark, thus effectively controlling publications in that journal. The collaboration is evidenced in joint publications such as *Nature*, 14 August 1975, titled '*Infective transmission and characterisation of a C-type virus released by cultured human myeloid leukaemia cells*' by Weiss, Gallo et. al. (exhibited as **WITN0684005**) which claimed to have isolated a new human leukaemia virus, entitled HL23 (later proved to be a laboratory contamination with several monkey viruses). Weiss' exceptionally favoured status as Gallo's colleague is also apparent in Gallo's laboratory notes examined when, much later, Gallo was being subjected to congressional investigation of his research conduct.

In 1984, Dr Luc Montagnier, the head of the French laboratory at the Institut Pasteur, told me that for several months after submitting the 1983 manuscript of Klatzmann et al he received no news from the editorial office of *Nature*. When he was eventually contacted (after over 4 months according to Klatzmann) it was a rejection letter which contained reports by supposedly two independent referees. He gave me a copy of those reports (exhibited as **WITN0684003**) and indicated that he suspected Dr Robin Weiss to be the referee(s). Even before reading the text of the two reports, I was struck by the similarity of the typewriters used to produce the reports. Acting on that suspicion, I had the reports examined and was told that both had been typed by a Royal typewriter – which apparently was used in Dr Weiss' laboratory at the Chester Beatty, part of the Institute of Cancer Research which Dr Weiss was directing at the time.

Subsequently I gathered that Dr Peter Newmark, the biological sub-editor of *Nature*, had allowed Dr Weiss' laboratory to provide both referees, a transgression for which he was later dismissed, as I was told by John Crewdson, a Pulitzer Prize winner who published the book *Science Fictions*. This role of Weiss was not made explicit in Crewdson's book because of confidentiality, but when Crewdson confronted Weiss, he did admit that he "might have been one of the referees" as Crewdson recalled in a recent email to me dated 16 July 2019. In January 1990, I was interviewed by the Glasgow Herald and accused Weiss outright of blocking the 1983 French paper. As reported in the front page 30 January 1990 of the newspaper he vehemently denied ever seeing it, but when I offered to meet him in court over my accusation declined to accept the challenge. Dr John Maddox, chief editor of *Nature*, later confirmed that Weiss had indeed been the referee responsible for the manuscript rejection; this is also according to John Crewdson.

Weiss' strong support for Gallo's claim that HTLV, the leukaemia virus, was the cause of AIDS is not easy to understand, because he should have known, as coauthor of a 1350 page book on *RNA Tumor Viruses*, that morphologically oncoviruses are distinct from lentiviruses and that oncovirus-infected cells remain apparently normal or undergo malignant transformation that increases their numbers, whilst AIDS patients lose most of their T-cells. If he was indeed aware, it could hardly have escaped him that Gallo was well occupied in pursuit of an HTLV will-of-the-wisp while he, Weiss, would have a chance to steal a march on his colleague by working with the probable genuine agent discovered by the French. Be this as it may, Referee 1, where I believe Weiss to be the unattributed author, wrote the following rejecting the Klatzmann et al paper in 1983:

"Gallo's Laboratory spent almost 2 years carefully characterizing HTLV before they ventured into print. Had the data been as rudimentary as for the Paris virus, no-one would have taken the finding seriously."

The rejection of the French paper was an opportunity to be exploited. Weiss sent an associate to Paris in 1984 for a sample of French virus for study. After receiving the virus he claimed to have isolated it independently, changed its name to CBL-1,

and later licensed it to Wellcome Diagnostics to develop the so-called British AIDS test.

David Klatzmann also stated in a letter to me that Weiss had visited him in 1984 in Paris. Learning of the studies showing CD4 antigen on the surface of T lymphocytes to be the receptor for HIV Weiss claimed to have similar findings – without evidence – generously offering as Nature's principal referee on retroviruses to take Klatzmann's paper to Nature for publication alongside his own alleged results. But it was delayed for several months, conveniently sufficient time to allow the French work to be reproduced in Weiss' laboratory. The published dates of submission of the manuscripts were also apparently decided by Weiss, since his and Klatzmann's papers were given identical dates: 18 October 1984. Thus Weiss became "co-discoverer" of the CD4 cellular receptor for HIV. The Klatzmann article is titled '*T-lymphocyte T4 molecule behaves as the receptor for human retrovirus LAV*' (Klatzmann D , Champagne E, Chamaret S, et al., Nature, 312, 767-768, 1984); Weiss' is titled (1984) '*The CD4 (T4) antigen is an essential component of the receptor for the AIDS retrovirus*' (Dalglish A G, Beverley P C L , Clapham P R et al, Nature, 312 , 763-767, 1984).

Weiss' rubbishing the major French paper of May 1983 blocked its appearance and set back research world-wide on AIDS. It could have been productively employed, rather than wasted from 1983; development of a diagnostic test for HIV could have started in 1983; and a test could have been ready by 1984. In 1983 the French team had already begun to test for LAV (HIV) and were able to determine, again in 1983, that the pooled plasma given to haemophiliacs was contaminated with the virus. Two French doctors from the Paris blood transfusion service were later sent to jail for knowingly using the contaminated plasma in 1983. Meanwhile the confusion sown by Gallo's continued publishing of papers into 1984 claiming HTLV as the cause of AIDS impeded the development of a genuine test for infected individuals and blood products. Many will have become infected in the UK between 1983 and September 1985 ('a Lost Year'); world-wide, probably several hundred thousands.

The French team made attempts meanwhile to bring their major paper to publication, submitting it to the Proceedings of the National Academy of Sciences USA. It was rapidly recommended by one referee, but the other, possibly Gallo, sat on the paper for months until, it transpires, Gallo's laboratory was ready to publish his claim to discovery of the real AIDS virus. Then, according to an e-mail from Klatzmann, 21 October 2019, Science editorial office called Montagnier and offered to publish the French work. Crucially, this was only after Gallo's clutch of papers had already been accepted in the same journal.

My own and other's research on HIV-AIDS in the UK was also obstructed by Weiss. Dr. Tedder refused to provide me with any blood sample from an AIDS patient on Weiss' advice (letter of 20 June 1983). Weiss also told Drs N. Byrom and C. Farthing he would prevent their receiving any support for HIV-AIDS research.

Tedder and Weiss themselves failed to obtain a single successful isolate of HIV despite access to AIDS patients from 1980, until they had been sent the French virus by Montagnier (which they appropriated, renamed as CBL-1, and licensed to Wellcome Diagnostics).

In late 1983, having received the genuine LAV/AIDS virus that Montagnier had innocently sent him in a spirit of collaboration, the American Gallo realised his earlier attributing the disease to HTLV was clearly wrong. He switched direction in 1984 from HTLV and worked on LAV which he then renamed HTLV-III, claiming to have discovered the cause of AIDS. This was reported in Science in a back-to-back sheaf of papers - a slightly disreputable tactic intended to obliterate competitors in the view of the scientific public. Here, Gallo's priority was apparently confirmed by publication in the same journal of the French paper months later. It gave rise to a general perception that the French work had been largely overshadowed by the Americans. As Weiss wrote the following in a Nature article titled 'Retroviruses linked with AIDS' dated 3 May 1984:

'Montagnier's group in the Institute Pasteur in France which published first but with skimpy data, and Gallo's group at NCI, which delayed submission until a thorough characterisation of their virus and repeated isolations from different patients had been accomplished' (exhibited as BAYP0000026_107).

The Penrose Inquiry Report deals with these matters particularly in Chapters 29 and 30 and refers to the mass of evidence uncovered by the journalist John Crewdson's investigations. Under pressure from Dr. McClelland their general veracity is acknowledged. But ignoring Crewdson's actual findings the Report reads like an apologia for Professors Weiss and Tedder and perpetuates the deception of presenting the French work as earlier but unpersuasive and the American papers as authoritative and definitive. Non-experts in the field were not to know of Gallo's extensive fraudulence in, for example, his purely fictional claims of numerous HTLV-III isolations from AIDS, pre-AIDS, and asymptomatic subjects, which formed a major part of his claim to proof that he had discovered the cause of AIDS. When Gallo's laboratory work was examined during a US congressional investigation, no evidence of any such isolations was found; the only isolate that had grown was the one received from Paris.

In the event the Nobel Prize Committee was not as readily hoodwinked. In 2008 the Nobel Prize in medicine was awarded to Montagnier and Barre-Sinoussi, rejecting Gallo's claims. When it was discovered that the sequence of Gallo's HTLV-III was identical to the virus he received from Paris, he had to leave the National Institutes of Health (NIH).

It would be speculative to estimate how many additional people might have avoided infection, had an authorised test been generally ready in 1984, because an estimate would depend on many assumptions, all of them contestable. AIDS is only the end-stage of a long progressive destruction of the immune system with people

remaining apparently healthy for many years, so especially in the early years of the epidemic a great many more will have been infected than the numbers of AIDS notifications would suggest. But these facts may perhaps give an impression: AIDS cases in the US increased 10-fold between 1983 and 1986, 5-fold in Europe between 1984 and 1986, doubled world-wide between 1985 and 1986 and nearly doubled again between 1986 and 1987 according to WHO. The WHO figures for 1986 are 31741 AIDS cases in the US, 3858 in Europe. In 1987 they estimated that, world-wide, 5-10 million people were infected with the virus.

Unfortunately there was yet another 6-month delay in the introduction of HIV testing on top of the 'Lost Year' in the UK. That 6-months delay is entirely the responsibility of Dr Philip Mortimer, a Consultant Virologist who was head of the Public Health Laboratory Service (PHLS) Virus Reference Laboratory in Colindale. He was the only person who could decide when to start testing and which tests to evaluate for HIV infection. It appeared that due to his friendship with Weiss and Tedder he delayed the approval of the US Abbott test in order to enable Wellcome Diagnostics to develop a British test with Weiss' so-called CBL-1 virus.

Delay in the Introduction of an HIV Diagnostic Test in the UK

I developed a test for HIV-1 in 1985, and in 1987 added HIV-2 (received from Montagnier). (*Lytic Infection by British AIDS virus and the Development of a Rapid Cell Test for Antiviral Antibodies* , *The Lancet*, 1985, vol. 326, issue 8457, pp. 695-697; 'Six New Isolates of Human Immunodeficiency Virus Type 2 (HIV-2) and the Molecular Characterization of One (HIV-2 (CAM2))', *Journal of General Virology*, 1989, vol. 70 p.479). The test was approved in Japan on January 22 1988 (exhibited as **WITN0684013**).

In the UK I learned that there was delay in the introduction of screening for HIV after reading an article in the *New Scientist* of 8 August 1985, titled '*Ministers Delay Launch of AIDS Test*' (exhibited as **WITN0684014**). Although the article does not mention the names of doctors Mortimer and Weiss, Mortimer was the person in charge at the PHLS Virus Reference Laboratory Colindale, which had been chosen to carry out the evaluation of proposed tests on behalf of the DHSS by the Expert Advisory Group on AIDS (EAGA), an Expert committee of the UK Health Department. It was his responsibility to select the tests to approve for HIV and thus determine when the roll-out into the NHS could begin.

The first HIV diagnostic test by Abbott was approved by the United States Food and Drug Administration (FDA) on 2 March 1985 and introduced to many other countries, following the year already lost through Weiss' blocking of the French paper and Gallo's disreputable maneuvers. In France the Abbott test was approved for use on 24 July 1985. Even before the commercial tests were introduced, they used

laboratory testing of blood products from 1983 which enabled them to realise that batches of Factor 8 were contaminated with HIV. But in the UK on top of this there was a further 6-month delay in the introduction of HIV testing, directly the responsibility of Dr Mortimer and more remotely a failure of the DHSS in leaving such a significant decision affecting thousands of lives in the hands of a single person. As indicated in the *New Scientist* article, Abbott Laboratories claimed that their test was not approved because Wellcome Diagnostic test was still under development, from March to October 1985. Had the approval of an effective test been the only criterion, the evaluation of the existing Abbott test could have been done within a week as occurred with my own test mentioned above. All first generation tests gave a very similar rate of false positives because they used virus extracted from whole cells and therefore contained cellular proteins giving rise to the false positivity. The Wellcome test was not exempt. But with the aid of a confirmatory test it was possible to distinguish false positives. The important consideration was that they should not be giving false negatives.

After approval of the Wellcome test and its roll-out into general service it eventually became clear that Weiss' CBL-1 virus at the basis of the Wellcome test was in fact the same French virus isolate Weiss had received from Montagnier's team in France, as noted by Steve Connor in his article titled '*Million pound row over Aids test*' in *The Independent* on Sunday, published 20 January 1991 (exhibited as **WITN0684015**). The article notes:

'Dr Weiss has said it was possible that he mistakenly used an AIDS virus supplied to him by the Pasteur Institute ... Dr Weiss had signed an agreement with the Pasteur in 1984, stipulating that the French virus, called LAV [renamed to CBL-1 in Weiss' lab], was to be used for research, not commercial purposes. So, if LAV was used, even accidentally, to develop an AIDS blood test, the agreement would be breached'.

Nevertheless Dr Weiss later shared the Queen's Award for Industry for helping Wellcome develop the test, though by delaying the introduction of the Abbott test by 6 months many more of the Queen's subjects will have become HIV infected, developed AIDS and died. It is possible Mortimer might have received a grant to his lab from Wellcome for his collaboration but I have no knowledge of the matter.

Funding for HIV research

In the mid-eighties I met Dr. Carol O'Toole, a researcher in immunology at The University of Cambridge's Department of Pathology who was moving to London to take up an appointment at the Royal London Hospital; prior to this, we had talked about a joint research project on antibodies in HIV-infected individuals with the idea of her applying for a research grant. After Dr. O'Toole moved to London she told me that she had given up the idea of applying for a research grant

after speaking with Dr Nigel Byrom, a lecturer at the Charing Cross and Westminster Medical School, University of London, who acquainted her with his experience of Professor Weiss. I called Dr Byrom in order to understand what had happened, who then told me of his unpleasing visit to Professor Weiss. He put his account in writing, which he provided to me in a letter of 31 May 1991 (exhibited as **WITN0684016**) and writes as follows:

" Dr Charles Farthing and I had gone to see the professor to discuss how we might obtain research monies....We were told not to bother to apply for funding for research in any area of activity where Professor Weiss was involved, because he would make sure we didn't get any support. We ... were concerned that the professor was using his position to create a monopoly".

Dr Farthing was an AIDS doctor and after his meeting with Weiss started to look for jobs abroad. He left for the USA in 1988 where he became the director of the AIDS treatment program at Bellevue Hospital in New York City.

I was well aware that Weiss, by dominating AIDS research through his influence at the journal *Nature*, was very influential together with his associates Professor Tedder and Dr Angus Dalgliesh on many grant-giving bodies relevant to HIV research. During my last 20 years in the department of Haematology, my group's research was financed to a significant extent with the money I had made from the Japanese use of the cell tests I developed for HIV-1, HIV-2 and Adult-T cell leukaemia virus (ATLV, HTLV) which are still in use to this day. I knew it was pointless for me to seek funds from the usual sources like the MRC. Another project of mine to investigate promising therapeutic effects of passive immunotherapy in AIDS likewise failed to secure significant funding, despite support from clinical trials in the US and France. It was clearly futile applying further.

In conclusion

A Lost Year in AIDS research is attributable to Dr Weiss' deliberate blocking of the seminal French 1983 manuscript of Klatzmann et al.

Dr Mortimer is responsible for the following 6-month delay in the UK before screening for HIV was introduced, through allowing his friendship with Tedder and Weiss to influence the timely validation of tests.

Statement of Truth

I believe that the facts stated in this witness statement are true.

Signed

GRO-C

Dated

27-1-2020

INDEX OF EXHIBITS

Exhibit no.

Document

WITN0684002

Letter from Dr J Smith to Dr Karpas dated 3 November 1988

WITN0684003

Reports sent to Dr Luc Montagnier in support of rejection received from the editors at Nature.

BAYP0000026_107

Article titled "Retroviruses linked with AIDS" by Robin Weiss published 3 May 1984.

WITN0684005

Article titled "Infective transmission and characterisation of a C-type virus released by cultured human myeloid leukaemia cells" by Weiss, Gallo et. al. published 14 August 1975.

WITN0684006

Letter from Dr Tedder to Dr Karpas dated 20 June 1983.

WITN0684007

Article titled "Use of the Karpas Cell Test To Detect Antibodies to HIV-2" published in the Lancet 18 July 1987.

WITN0684014

Article titled "Ministers delayed launch of AIDS test" published in the New Scientist on 8 August 1985.

WITN0684015

Article titled "Million pound row over Aids test" published in The Independent on Sunday on 20 January 1991.

WITN0684016

Letter from Dr Byrom to Dr Karpas dated 31 May 1991.