AFFIDAVIT

I, the undersigned

ROBIN WOOD

hereby make oath and state as follows:

1. The facts deposed to in this affidavit are within my personal knowledge and are true and correct.

2. In 1986, I was registered with the then South African Medical and Dental Council (now the Health Professions Council of South Africa) as a medical practitioner. I was registered during 1990 as a Specialist of Internal Medicine. My registration number is MP 282162. I am a Fellow of the College of Physicians (SA).

3. Between 1967 and 1990, I obtained the following degrees and diplomas:

   - Bachelor of Science in Biophysics (1st Class Hons), London University;
   - Bachelor of Medicine and Bachelor of Surgery, Oxford University;
   - Masters in Medicine, University of Cape Town;
   - Diploma of Tropical Medicine & Hygiene, Liverpool University;
   - Diploma of Royal College of Obstetrics and Gynaecology, London

4. I spent two years (1990-1992) at Stanford University Medical School, California, USA, on an "Infectious Diseases Fellowship".

5. Currently, I hold the position of Principal Medical Specialist at Groote Schuur Hospital, Cape Town.

6. I also hold or have held the following additional positions:

- I am a Professor of Medicine, University of Cape Town;
- I was the Head of the Department of Medicine and HIV Service at Somerset Hospital, Cape Town; This was the first dedicated HIV clinic in the Western Cape.
- I am the Director of the Desmond Tutu HIV Centre, Institute of Infectious Disease and Molecular Medicine, University of Cape Town.
- I am the Director of the Cape Town HIV Vaccine Consortium
- I am a founder and executive member of the South African HIV Clinicians Society
- I am a member of the scientific program committee of the International AIDS Society.

7. Since 1993, I have developed extensive and specialist HIV/AIDS-related research and clinical experience in South Africa.

8. I have been involved as the principal investigator for 40 HIV-related studies. I have researched and co-authored more than 90 peer-reviewed articles and I have presented and co-authored more than 120 abstracts at national and international science conferences on HIV/AIDS treatments.

9. I have written peer-reviewed scientific articles on the impact of ARV therapy on incidence of opportunistic infections and survival of HIV-infected individuals. My review of Nevirapine toxicity and relevance for HIV

treatment in South Africa is to be published in the next issue of the South African Medical Journal.

10. I have supervised and evaluated the treatment of thousands of patients with HIV/AIDS, including over one thousand by use of antiretroviral treatment in public hospitals and clinics in the Western Cape.

11. I have served and continue to serve on local, provincial, national and international committees on treatment for HIV/AIDS and other infectious diseases. I am a reviewer for national and international scientific journals for HIV/AIDS related scientific manuscripts. I attach as an annexure my CV setting out these matters. [**Annexure: RW1**].

12. I believe and respectfully submit that I am, by training and experience, duly qualified to express the views and opinions set out in this affidavit and to assess the repute, opinions and reliability of other experts and non-experts that I may refer to.

13. I have no financial relationship with the applicant, TAC, and make this affidavit as an independent expert.

Prof Sam Mhlongo

14. I have been made aware of the affidavit of Prof Sam Mhlongo for the respondents. I note that paragraph [9] thereof states "the use of the drugs AZT and nevirapine are harmful to HIV/AIDS patients owing to their exceptional toxicity, severe, sometimes fatal side-effects, and that their use in medicine is highly contentious to say the least".

15. The statement that the medical use of AZT and nevirapine is "highly contentious" seriously mischaracterises the nature of existing scientific knowledge and debates concerning these ARVs.

16. An overwhelming scientific consensus exists in South Africa and internationally that the benefits of ARV treatment (including using AZT and nevirapine) far outweigh the risks. This consensus includes that ARVs are the only known specific treatment for HIV/AIDS. AIDS is generally a fatal condition without ARV treatment. I agree with this consensus.

17. Apart from my own expertise and experience and the mass of medical literature in relation to the HIV epidemic, there is an overwhelming scientific and medical consensus that whatever risks they hold, ARVs are necessary and are largely safe and effective in treating HIV/AIDS. This is demonstrated by the following:

16.1 AZT, nevirapine and other ARV medicines are approved by the Medicines Control Council of South Africa, the statutory regulatory body, as safe and effective for the treatment of HIV.

16.2 AZT, nevirapine and other ARV medicines are approved by the statutory regulatory bodies of the European Community, USA and Canada (amongst other nations) as safe and effective for the treatment of HIV.

16.3 Professor Mhlongo refers to his membership of the Presidential AIDS Advisory Panel of the national Department of Health. After that Panel had reported, the Cabinet adopted the National Treatment Plan for HIV/AIDS. I attach as **RW2** a copy of the National Treatment

Guidelines. Treatment with ARVs is a significant component of that National Treatment Plan.

16.4 The guidelines of the South African HIV Clinicians Society are to the same effect. I attach a copy of these guidelines as **RW3**.

16.5 ARV treatment (including with AZT and nevirapine) is an integral component of the global treatment response to HIV of the World Health Organisation ("WHO"). This was endorsed by the Joint United Nations Programme on HIV/AIDS ("UNAIDS"). The entire WHO "3 by 5" program (to treat 3 million HIV-infected individuals by the year 2005) is premised on the efficacy of these medicines. The WHO treatment guidelines are extensive and may be found at www.who.int/3by5/publications/documents/arv_guidelines/en. I attach as **RW4** print-outs from the WHO website, where the guidelines can be obtained. They describe the centrality of ARVs to the global public health response to HIV/AIDS.

16.6 Over 5,000 scientists from around the world (including 11 Nobel Prize winners) signed the Durban Declaration of July 2000, affirming that HIV is the cause of AIDS, and affirming the life-saving nature of antiretroviral treatments. The list of signatories includes, as well as directors of leading research institutes and presidents of academies and medical societies, including the US National Academy of Sciences, the Royal Society of London, the UK Academy of Medical Sciences, and the Pasteur Institute, Max Planck Institutes, the US Institute of Medicine, the European Molecular Biology Organization, the AIDS Society of India, the National Institute for Virology in South Africa, and the Southern African HIV Clinicians Society. Scientists working for pharmaceutical companies were not asked to sign the Declaration. I

attach as **RW5** is a copy of this Declaration (see www.nature.com/index.html).

16.7 On 22 May 2004 the World Health Assembly at its 57th session issued a statement “acknowledging that antiretroviral therapy has reduced mortality and prolonged healthy lives”. It welcomed the WHO HIV/AIDS programmes in securing access to ARV treatment. The statement is attached as **RW6**. It also lists other international developments acknowledging the significance of ARV treatment, including the United Nations General Assembly adoption on 27 June 2001 of its Declaration of Commitment on HIV/AIDS at a special session, in which it specifically called for comprehensive strategies including for access to antiretroviral drugs.

16.8 The *Revised Guideline 6* of the International Guidelines on access to prevention, treatment, care and support promulgated jointly by the United Nations High Commissioner for Human Rights and UNAIDS (2003) calls on all States to “ensure for all persons…the availability of…antiretroviral and other safe and effective medicines…for care of HIV/AIDS…”. I attach as **RW7** this guideline, which is available at www.unaids.org/html/pub/Publications/IRC-pub02/JC905-Guideline6_en_pdf.pdf.

Anthony Brink

18. I have been made aware of the affidavit in reply of Mr Anthony Brink for the Rath Foundation, including the statements made therein in relation to the science of the treatment of HIV, including the safety and efficacy of antiretrovirals.

19. Mr Brink produced similar statements concerning the toxicity of AZT as outlined in paragraphs 6-22 in an affidavit to the Petermaritzburg High Court in 2002. His claims were refuted in detailed affidavits by myself , Professor Brian Gazzard (President of the British HIV Association) and Professor David Back (Head of the Pharmacology Department of Liverpool University, UK). The plaintiff did not proceed with that case.

20. I have not been asked to respond in detail to the various statements on medical and scientific matters in Brink's affidavit. I comment here on one such statement.

20.1 Mr Brink states at para [62] that "No industrialised first world country permits the administration of nevirapine in labour and their new-born babies. It is only in developing countries that the drug is pumped for this purpose."

20.2 This is incorrect. Not only is the drug allowed; in some scenarios, it is recommended. The US Public Health Service Task Force (a federal institution under the US Department of Health and Human Services) publishes "Recommendations for Use of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States". It discusses nevirapine in detail and recommends "a single dose nevirapine at the onset of labor followed by a single dose of nevirapine for the newborn at age 48 hours" as one of four options for "HIV-1-infected women in labor who have had no prior therapy" (see scenario 3, table 4 of the report on page 41). The other four options involve either Zidovudine (AZT) or AZT used in conjunction with nevirapine. (Source: http://aidsinfo.nih.gov/guidelines/perinatal/PER_022405.pdf)

20.3 Page 45 of the US Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents contains the recommendations for which antiretroviral regimens should be used. Nevirapine is listed as an antiretroviral that can be used as part of treatment. There is no mention of it "being a treatment of last resort" as suggested by Brink at para [61]). (Source: http://aidsinfo.nih.gov/guidelines/adult/AA_040705.pdf)

STATEMENTS MADE BY THE RATH FOUNDATION

21. I have been asked to express my expert opinion on certain of the statements made in advertisements published by the Rath Foundation. These are the following:

- "Why should South Africans continue to be poisoned by AZT? There's a natural answer to AIDS."

- "Hundreds of studies have found that AZT is profoundly toxic to all cells of the human body, and particularly to the blood cells of our immune system."

- "Numerous studies have found that children exposed to AZT in the womb suffer brain damage, neurological disorders, paralysis, spasticity, mental retardation, epilepsy, other serious diseases and early death."

- "Do you want to continue being misled to believe that…highly toxic drugs like AZT and nevirapine are the answer to AIDS?"

22. In my professional opinion, the above statements that ARVs are ineffective for treating HIV/AIDS, or that there is a “natural answer to AIDS” are all false and misleading.

23. In my professional opinion, ARV treatment is the only medical intervention available that specifically treats HIV. The recorded scientific evidence demonstrating this is beyond reasonable doubt. It also accords with my personal expertise and experience. Numerous clinical studies have been conducted which demonstrate beyond reasonable doubt that ARVs, including AZT and nevirapine, or both in combination, are effective for treating HIV/AIDS and preventing mother-to-child transmission of HIV.

24. If there was indeed a “natural answer” to AIDS, of the kind propounded by the Rath Foundation, I would use it to treat my patients. Regrettably it is simply not true.

SIDE- EFFECTS OF ARVs

25. As with most effective scientifically proven and approved medicines, ARV medicines (including AZT and nevirapine), can cause serious side-effects.

26. However, the benefits of ARV treatment far outweigh the risks. Without ARV treatment, patients with HIV infection progress to AIDS. Once patients have developed AIDS, approximately 50% will die within 12 months in the absence of antiretroviral therapy. ARV treatment decreases progression to AIDS and reduces mortality of AIDS patients by approximately 90%.

27. The point is perhaps most easily illustrated by the use of chemotherapy treatment for cancer. Chemotherapy is much more likely than ARV therapy

to result in serious toxicity and the survival benefits are frequently modest. It is however well established in medical science that the benefits of chemotherapy outweigh its risks.

28. There is not a single recorded incident of a serious adverse event associated with the single-dose nevirapine regimen, which is used in most South African hospitals to prevent transmission of HIV from mother-to-child.

29. Side-effects are more common with multiple dosing and ARV combination therapies. These more complex regimens (frequently including AZT and/or nevirapine) are more effective for mother-to-child transmission prevention than single dose nevirapine. Recommended regimens are chosen for their tolerability and safety..

30. Children exposed to AZT in the womb are not at high risk of brain damage, neurological disorders, paralysis, spasticity, mental retardation, epilepsy, other serious disorders and early death." The opposite is true. When AZT is used by a pregnant woman to reduce the risk of transmitting HIV to her child, the child is much less likely to contract HIV and much more likely to live a healthier, longer life.

MULTIVITAMINS

31. The Rath Foundation claims that multivitamins are effective in treating AIDS.

32. The Foundation makes *inter alia* the following claims:

- “There's a natural answer to AIDS”,
- “On 1 July 2004, a landmark study by Harvard University was published in one of the world's leading medical journals, the New England Journal of Medicine, summed up the same day by the world's most influential and respected newspaper, the New York Times: `The study found that daily doses of multivitamins slow down the disease and cut the risk of developing AIDS in half.' ”,
- “The Harvard study, conducted in Tanzania over a period of eight years, involved more than a thousand HIV-positive pregnant women. It was a placebo controlled and double blind trial conforming to the highest standards. The study showed that inexpensive multivitamin treatment is more effective in staving off disease among HIV-positive women than any toxic AIDS drug.”

33. I believe that the effect of the Rath statements is to assert that multivitamins effectively treat AIDS. However, there is no evidence that this is the case. The above-mentioned study was well conducted however it did not substantiate the Rath statements, nor did the authors interpret their results to make make any such assertion.

34. Unfortunately, there is no proven effective ‘natural’ answer to AIDS. Dietary and nutritional interventions do have potential benefits for patients but they cannot prevent death from AIDS. Dietary and nutitional supplements are therefore not a substitute for specific treatment of AIDS with ARV treatment.

35. The value of nutritional supplements is well recognised, and for this reason the public health system already makes multivitamin supplements available to HIV patients for free. These supplements are however not “the answer to” AIDS nor an effective treatment of AIDS.

36. As I understand the Rath statements on “natural answers” and/or multivitamins, when taken in combination with the Rath statements about ARVs, they amount to an assertion that multivitamins effectively treat AIDS, while ARVs do not do so, and indeed actually cause illness and death.

37. Both of these claims are scientifically and medically unfounded and false.

38. The Rath statements that there is a natural or nutritional-supplement ‘answer’ to AIDS are dangerous since they tend to recommend to persons infected with HIV that they can live relatively healthy, ongoing lives without ARV treatment and care. AIDS is a rapidly lethal condition without ARV intervention.

CONCLUSION

39. On 23 March 2005, in response to the respondents’ campaign, the Provincial Government of the Western Cape issued a statement (through the Provincial Minister for Health) clarifying that ARV treatment is integral to the province’s public health response to HIV. I attach this statement as **RW8**.

40. On 30 March 2005, the WHO, United Nations Children’s Fund (“UNICEF”) and UNAIDS issued a joint statement in Geneva reaffirming the place of ARVs in HIV treatment, and calling Dr Rath’s claims about ARVs and nutrition-only responses to HIV ‘irresponsible and dangerous’. I attach this statement as **RW9.**

41. On 2 March 2005 and on 11 March 2005 the South African Medical Association ("SAMA") issued statements of concern in relation to Dr Rath's false claims about ARVs. I attach a copy of these statements as **RW10.**

42. In March 2005 the SA HIV Clinicians Society also released a statement on Dr Rath's false claims about ARVs, to the same effect.

43. The statements by the Provincial Government of the Western Cape, the WHO, UNICEF, UNAIDS, SAMA and The SA HIV Clinicians Society are in my professional opinion correct.

44. As I have stated above, I have personally treated thousands of patients with HIV/AIDS, including by use of antiretroviral treatment, in public hospitals in the Western Cape. My personal experience with the patients whom I have treated is entirely consistent with the scientific consensus which I have set out above.

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ROBIN WOOD

I CERTIFY THAT THE DEPONENT ACNOWLEDGED TO ME THAT HE KNOWS AND UNDERSTANDS THE CONTENT OF THIS DECLARATION, THAT HE HAS NO OBJECTION TO TAKING THIS PRESCRIBED OATH AND CONSIDERS IT TO BE BINDING ON HIS CONSCIENCE.

THUS SIGNED AND SWORN TO BEFORE ME AT CAPE TOWN ON THIS DAY OF APRIL 2005.

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COMMISSIONER OF OATHS