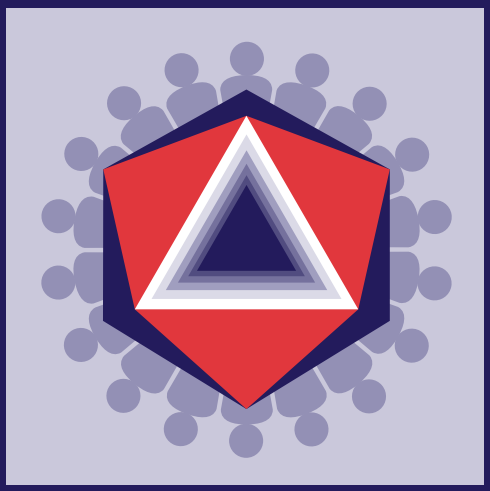
NATIONAL CENTRE IN HIV EPIDEMIOLOGY AND CLINICAL RESEARCH



COMMUNITY HIV RESEARCH NETWORK

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NATIONAL CENTRE IN HIV
EPIDEMIOLOGY &
CLINICAL RESEARCH

Foreword

I am delighted to have the opportunity to contribute to the National Centre's annual report. Since becoming Dean of the Faculty of Medicine in early 1998, I have had the opportunity to chair my first Management Committee meeting at the National Centre and was struck by the dedication and productivity of the organisation.

With the new developments in HIV treatments and a continuing low incidence of HIV infection, it is possible that we could become complacent about the continuing need for HIV research. But now, more than ever, we need to maintain the high quality and scientific rigour of our research effort in support of the National HIV/AIDS Strategy. I am confident the National Centre will continue to play a leading role both nationally and internationally in promoting scientific standards in HIV research and education.

I anticipate the coming year will be a dynamic one as the Faculty's structures come under review as part of the University of New South Wales' Year 2000 strategic plan and that the Centre will make a substantial contribution to the Faculty's response.

I look forward to a prosperous working relationship with my colleagues at the National Centre.

PROFESSOR
S. BRUCE DOWTON

S. Bruce Dowton
Chair, Management Committee
National Centre in HIV Epidemiology
and Clinical Research
Dean, Faculty of Medicine, The University of New South Wales

NATIONAL CENTRE IN HIV
EPIDEMIOLOGY &
CLINICAL RESEARCH

Introduction

The National Centre has again experienced a challenging and productive year. It was firstly marked by the third five year review of the Centre's scientific program. In July, a review team, chaired by Professor Aileen Plant, met to determine the Centre's work program and funding requirements for the next five years. I am pleased with the favourable review outcome and anticipate a further five years funding, due to commence in 1999. This will enable us to continue to improve and expand on the extraordinary achievements already made by the Centre.

People living with HIV have continued to benefit from the dramatic changes in treatment as a result of the array of drugs licensed this year. These advancements present complex, but unresolved, challenges to both physician and patient when planning appropriate treatment. In late 1997, the issue of lipodystrophy, an important toxicity of HIV protease inhibitors, and its increased occurrence has become the Centre's most recent research focus. We will continue to address this, and other important therapeutic challenges for people with HIV infection in 1998.

For the National Centre, 1997 also saw the first issue of our Annual Surveillance Report on HIV/AIDS and related diseases. This comprehensive review of the HIV epidemic in Australia was the result of an enormous commitment by researchers from our Epidemiology Unit, in collaboration with a wide range of organisations and individuals from across the Australian health system. The 1997 *Annual Surveillance Report* has been extremely well received by our scientific colleagues.

The Community HIV Research Network coordinated the production of a revised set of antiretroviral guidelines, which have been updated to reflect the additional combination therapies available.

PROFESSOR
DAVID COOPER

Next July, I will complete my term as President of the International AIDS Society (IAS). Four years ago no one could have predicted the remarkable progress already made in this extraordinary epidemic. I am confident that working together we can continue to achieve the best possible medical and scientific outcomes for people with HIV/AIDS, and support the ongoing successes in HIV prevention in Australia.

David A. Cooper
Professor of Medicine and Director
National Centre in HIV Epidemiology and Clinical Research
The University of New South Wales

1997 REVIEW

In 1997, the National Centre underwent its five yearly scientific review as required by the University of New South Wales' contract with the Department of Health and Family Services. The Centre presented a comprehensive submission to the review, covering its proposed program for the years 1998 to 2002. In addition to its formal function, the review provided the National Centre with an opportunity to assess progress and carry out strategic planning.

The review was undertaken by a committee, chaired by Professor Aileen Plant from the Department of Public Health at the University of Western Australia, and a panel of highly qualified experts in HIV medicine and public health from both within Australia and overseas. The Committee's terms of reference were to review the performance of the NCHECR; assess its progress in relation to the recommendations from the previous (1992) review; and to assess proposed future directions and funding.

Overall, the Review Committee was strongly supportive of the continuation of the NCHECR, with the recommendation to continue block grant funding for a further five years. The Committee found the National Centre had implemented essentially all of the 1992 review's recommendations and endorsed its future directions. The Committee also recognised the National Centre's research achievements in the areas of epidemiology and clinical trials and noted its commitment to training, both for research students and health care workers in Australia and overseas. As one of its highest priorities, the Review recommended that the Centre should continue to strengthen its work in relation to indigenous people, with continued support provided to the National Indigenous Australians' Sexual Health Strategy 1996-7 to 1998-9.

The Review also endorsed the belief that Community HIV Research Network should become more closely integrated with the Centre's program and management structure.

The next review of the National Centre will take place in 2002.

SURVEILLANCE AND MONITORING

In 1997, the quarterly Australian HIV Surveillance Report was joined for the first time by a much more comprehensive annual surveillance report. Reflecting the third National HIV/AIDS Strategy, the HIV/AIDS and Related Diseases in Australia Annual Surveillance Report 1997 summarised epidemiological data on the occurrence of HIV/AIDS, related diseases and behavioural factors, as well as projecting the occurrence of AIDS in Australia over six years.

The Australian HIV Surveillance Report

The Annual Surveillance Report 1997 presented estimates of 11,000 people living with HIV infection in Australia by the end of 1996 and showed that AIDS incidence peaked in Australia in 1994.

While available evidence indicated continuing HIV transmission, primarily through sexual contact between men, there was no evidence for increased rates of HIV transmission. Information available through surveillance for blood borne viruses among injecting drug users indicated continuing high rates of hepatitis C transmission. There was no indication of changed patterns in the occurrences of other sexually transmissible diseases, such as gonorrhoea and syphilis.

PROFESSOR JOHN KALDOR

The Australian HIV Surveillance Report continued to be published quarterly and provided updates on the number of diagnoses of HIV infection and AIDS in Australia, HIV incidence and prevalence reported from a network of sexual health clinics and updates of the number of diagnoses of HIV infection and AIDS in the World Health Organisation (WHO) Western Pacific Region.

The quarterly report also included articles on topics of special interest in HIV epidemiology. In 1997, articles were published on the occurrence of cryptosporidiosis in people with AIDS, the pattern of diagnosed HIV infection and AIDS in women in Australia and conference reports from the 3rd International AIDS Impact Conference and the International Union against Venereal Diseases and Treponematoses 5th World Congress. The last quarterly report for 1997 summarised findings from the Sydney Men and Sexual Health (SMASH) cohort study, on sexual behaviour and treatment uptake.

Improvements in routine case reporting of HIV and AIDS

In 1997, information from the National Registry of Women with HIV Infection was incorporated into the National Centre's National HIV Database, facilitating linkage of records of HIV diagnosis to records of AIDS diagnosis. Analysis of the resulting data showed that the annual number of diagnoses of HIV infection in women remained remarkably constant from 1982 to 1996, at between 60 and 70. Median age at diagnosis of HIV infection and AIDS was 29 years and 34 years respectively. The predominant source of exposure to HIV in women continued to be heterosexual contact.[1]

Routine investigation of exposure history continued as a means of assessing transmission by routes other than male-to-male sexual

contact or mother to child. The questionnaire used to report HIV exposure history in these cases was further revised to facilitate standardised documentation. Of the 551 cases of HIV infection diagnosed between 1994 and 1997 in this group of people with HIV for which the exposure assessment questionnaire was returned, exposure to HIV through heterosexual contact was documented in 72%. Information available on the exposure assessment questionnaire resulted in an increased proportion of heterosexually acquired cases for which a sexual partner at risk of HIV infection was identified, from 63% at initial notification of HIV infection to 73% from the questionnaire.

Prevalence of HIV and hepatitis C infection and risk behaviour among injecting drug users

The third annual survey of HIV and hepatitis (HCV) antibody prevalence and injecting and sexual behaviour was carried out over a one week period in October 1997. Clients attending participating needle and syringe exchange programs (NSEP) were asked to complete a brief, self-administered questionnaire and provide a finger-prick blood sample. For the first time, four NSEP in New Zealand also participated in the survey.[2,3]

Completed questionnaires with blood suitable for HIV and HCV antibody testing were received from 1708 (55%) of clients attending 23 NSEP over the designated week in 1997.

The survey found that 20% reported use of a needle and syringe after someone else in the preceding month, a reduction from 30% in 1995. The proportion reporting condom use continued to be high.

HIV antibody prevalence remained low (1.6%) except among male participants who described themselves as homosexual (31%). Of 101 respondents who tested negative for HIV infection in 1995 and were retested in 1996, one (1%) male (who reported his sexual orientation as homosexual) seroconverted to HIV during the 18 month period between the two surveys.

HCV antibody prevalence remained high although reduced from 63% in 1995 to 50% in 1997. HCV antibody prevalence also decreased from 21% in 1995 to 12% in 1997 among respondents who had only been injecting for one or two years. The strongest predictors of HCV antibody were recent heroin injection (compared to amphetamine) and duration of injecting drug use.

Similar results were obtained in a project among injecting drug users attending methadone clinics. The results of routine testing for HIV, hepatitis B (HBV) and HCV infection were collated according to basic demographic characteristics and prevalence of HIV and HCV antibody and HBV surface or core antibody was 0.9%, 56% and 36% respectively. The prevalence of antibodies to HIV, HCV and HBV increased with the number of years of injecting drug use.

Accidental exposures to blood borne viruses among health care workers

A network of hospitals has been

established to provide routinely collected information on occupational exposures to blood and body fluids. A standard database was developed in collaboration with Becton Dickinson Pty Ltd (manufacturers of needles, syringes and other medical devices) for use with the Epi Info program. Collaborative links have been established with researchers using a similar database in the USA, Canada and Italy.

Data collection occurs every six months. In the first reporting period, from July 1995 to December 1995, information was obtained from 13 sites. Approximately 30 sites provided information in 1996 and 56 sites in 1997.[4-6] Results showed that the prevalence of HIV, HBV and HCV infection among sources tested following needlestick injury by health care workers was low. A small proportion of health care workers exposed to a source with HIV infection or to a source with unknown HIV infection status were prescribed antiretroviral prophylaxis for HIV infection. No seroconversions to HIV, HBV or HCV infection were reported among health care workers but information on testing at three months following exposure was only available for a minority of exposures.

Community attitudes to injecting drug use and the needle and syringe exchange program

In 1997, NSW Health commissioned the National Centre to carry out an assessment of the impact a new needle and syringe exchange program will have on the Kings Cross community. Baseline data were obtained prior to the opening of the site by recording the number of discarded syringes in the area and carrying out a phone survey of local residents to determine their attitudes to drug use and measures to reduce some of the problems associated with drug use. The survey and syringe count will be repeated in 12 months.

Monitoring the effect of improved antiretroviral therapies on AIDS diagnoses and survival

Statistical analyses, based on reported AIDS diagnoses, were used to assess the effectiveness of improved combinations of antiretroviral therapies in reducing AIDS diagnoses.[7]

Projections of AIDS case occurrence in 1995-97 based on the AIDS cases reported to the end of 1994, were compared with the number of cases that actually occurred. It turned out that there were fewer AIDS diagnoses in 1996 than would have been expected if improved antiretroviral treatments had had no effect in reducing the rate of progression to AIDS. It was estimated that to the end of 1996, all antiretroviral treatments have reduced AIDS incidence by 340 cases in Australia, corresponding to 1000 AIDS-free person-years gained. In 1996, AIDS diagnoses were estimated to be 10% lower than would have been expected without recent improvements in therapy.

It is expected that much of the benefit of improved antiretroviral treatments, in terms of reduced AIDS diagnoses, will become apparent in 1997 and beyond. These analyses will be updated annually to monitor the

effectiveness of treatments on trends in AIDS diagnoses.

Monitoring treatment uptake: A pilot study

As HIV treatments have improved, the focus of surveillance has expanded from monitoring of transmission to tracking the uptake and impact of therapy. One method for achieving this objective is via observational data collected on patients in the course of routine clinical management.

A pilot study was set up, under the auspices of the Clinical Trials and Treatment Advisory Committee (CTTAC), to assess the feasibility of combining data from existing computerised data management at three sites (two general practices and one hospital). The record systems were aggregated, in an entirely anonymous fashion, into a centralised database using electronic transfer of data. The objectives of this pilot project were to:

- assess the feasibility of combining data from several sites in an electronic manner
- to summarise uptake of antiretroviral treatments by stage of HIV disease.

Downloading and transfer of data are to begin in early 1998, with a draft report expected by mid-year.

SMASH (Sydney Men and Sexual Health)

1997 was the fifth full year of the SMASH study. The project continues to be recognised internationally as one of the most important longitudinal studies of its kind in the world and as a valuable source of information about HIV infection and related factors in homosexually active men. The retention rate remains at about 65% - 70%.

- **Treatment uptake**

During 1997, one of the study's most important findings was a radical change among HIV-positive men in treatment use. Prior to 1996 SMASH data had indicated decreasing levels of treatment use: just under half the men were taking antiretroviral therapy in early 1993 and by late 1995 this proportion had fallen to just over a third (*Sydney Gay Community Surveillance Reports No.2 and No.3*). During 1996, however, and particularly after the release of findings about new combinations of antiretroviral agents at the International Conference on AIDS in Vancouver, there was a rapid uptake of these new combination therapies. By late 1996, two thirds of the positive men were taking antiretrovirals, mostly as combination therapy, and in 1997 there was a continuing uptake of combination therapy. By the end of 1997, nearly five in six were taking antiretrovirals with almost three quarters on combination therapy (*Sydney Gay Community Surveillance Reports No.5 and No.6*).[8,9] The Sydney Gay Community Periodic Surveys (see below) have found similar proportions of HIV-positive men reporting being on combination therapy. Based on these findings a proposal to develop a longitudinal study of treatment use among PLWHAs has been developed. The study has been partially funded

by NSW Health and will assess uptake of treatments and motivation for both uptake and refusal of treatment options. It is a joint project between the National Centre in HIV Epidemiology and Clinical Research, the National Centre in HIV Social Research, the Australian Federation of AIDS Organisations (AFAO) and the National Association of People Living With HIV/AIDS (NAPWHA).

Both government and community based organisations have continued to use the data on treatment uptake among positive men in the SMASH cohort to inform the development of HIV treatment education campaigns during 1997.

- **Sydney, Melbourne and Brisbane**

1997 also saw the completion of a comparative analysis of data from SMASH (Sydney), MMASH (Melbourne) and BRASH (Brisbane), and the release of a report comparing data collected in late 1995 and early 1996 in each of the three cities.[10] In general these data were highly consistent across all three samples. Brisbane participants were, however, slightly less likely to use condoms with casual partners.

- **Scales and indicator variables**

A technical report describing how and which variables are used in all analyses was produced.[11] These variables summarise, as indicator variables, the key items of information obtained from the questionnaires. The report also describes the variables used to create the statistical scales in these analyses. This report was designed for researchers interested in the methods used for data analysis.

- **Periodic surveys**

The Sydney Gay Community Periodic Survey continued during 1997 with funding from NSW Health as a joint project with the National Centre in HIV Social Research, the AIDS Council of NSW (ACON) and PLWHA(NSW). The surveys are conducted on a six-monthly basis, in February and August, to assess the reliability of SMASH data.

Although data collected through these brief self-completed survey instruments are necessarily limited, they do allow quicker data collection and analysis, which can be explored more thoroughly within the larger SMASH study. Policymakers utilise these findings as a base for monitoring risk behaviours within the community. For this reason it has been proposed that these surveys be extended to the other mainland capital cities. Planning also began for surveys to commence in Melbourne, Brisbane, Adelaide and Perth in 1998.

In February 1997, 1609 men completed questionnaires and in August 1997, 1021 questionnaires were completed. The findings have generally supported those in the larger SMASH study and have indicated broad recognition of HIV education campaigns targeting gay men. The data have indicated a small increase in unprotected anal intercourse with casual partners since these surveys were first conducted in February 1996, although this increase has not been uniform across survey sites or time period.

- **Hepatitis C Virus Projections Working Group**

In late 1997, the Hepatitis C (HCV) Projections Working Group was established under the Hepatitis C subcommittee of ANCARD. The group, organised through the National Centre and chaired by Dr Alex Wodak, has the following objectives:

- to provide consensus estimates of HCV incidence and prevalence in Australia
- to obtain projections of the long-term sequelae of HCV infection
- to identify gaps in research and surveillance relevant to these projections
- to recommend a mechanism for the updating and improvement of estimates over time as new information on HCV in Australia becomes available
- to recommend mechanisms for monitoring the incidence and prevalence of complications of chronic HCV infection.

Membership of the group includes clinicians, epidemiologists, statisticians and mathematical modellers, health economists, and representatives of state/territory Health Departments, the Commonwealth and the Australian Hepatitis Council.

The group will conduct its business primarily by teleconference. It is anticipated that analyses will be completed by the end of April 1998, with a draft report by the middle of the year.

Statistical Methodology

When presenting AIDS incidence data it is important to adjust for reporting delays, the time interval between diagnosis of a case and reporting the case to the National AIDS Registry. If data on reporting delays are only collected after a certain time point, standard statistical approaches can only be applied once several years have elapsed after this time. The National Centre has developed statistical methods which allowed adjustment of AIDS incidence data to proceed much sooner following collation of data on reporting delays. Application of this method to Australian AIDS diagnoses demonstrated that the new method resulted in important gains in the precision of estimates.[12]

TRANSMISSION AND NATURAL HISTORY

Primary HIV Infection

During 1997, work continued on the Primary HIV Infection Clinical Research (PHICR) database project, in which both prospective and retrospective data were collected in order to examine the relationship between the nature and severity of the seroconversion illness and outcome including ultimate disease progression. Data were also included from recent clinical trials of combination therapy in primary HIV infection (PHI).

The project has produced a number of new findings in 1997:

- A cohort study of 218 subjects with symptomatic primary HIV-1 infection found that about 16% had typical mononucleosis-like illness (MLI) (defined as fever, pharyngitis and cervical adenopathy). Ten percent of subjects had no features of MLI.
- Acute HIV-1 disease is more diverse than previously reported and that the absence of fever or other features of MLI does not rule out acute HIV-1 disease.[13]
- The mean duration of acute HIV-1 disease was 25.1 days and did not differ by gender, age or HIV exposure category. The most common symptoms in order of frequency were fever, lethargy, cutaneous rash, myalgia and headache. More than 50% of subjects developed these symptoms. The more severe features reported were neurological and gastrointestinal. Nine percent of subjects developed a meningitis-like syndrome.[14]
- The first documented case of transmission of HIV-1 resistant to two antiretroviral compounds - nevirapine and zidovudine.[15]
- The frequency of the single mutation in the CCR-5 gene (CCR5Δ32) decreased in those infected with HIV after 1990. The underlying mechanism for this reduced frequency has yet to be determined.

The PHICR database also continued to provide data for the Tricontinental Seroconverter Study, a collaboration of five cohorts of homosexual men with HIV infection of known duration from Vancouver, San Francisco, Sydney and Amsterdam.[16]

Other projects for 1997 included a study on the effects of combination therapy at PHI on the duration of PHI symptoms which concluded that there appeared to be no difference in duration when compared with a control group. Research was also undertaken to determine whether combination therapy at PHI results in a dramatic drop in viral load to below detectable levels. This work assessed whether total immune recovery was possible at this stage of the disease. The fact that CD8 cell activation decreased, but did not return to within normal range suggests that there may be ongoing viral replication.[17]

Long-term asymptomatic HIV infection

The National Centre, in collaboration with St Vincent's Hospital, Sydney, Macfarlane Burnet Centre for Medical

Research, Melbourne and Westmead Hospital, Sydney continued to coordinate a study examining the virological and immunological characteristics of people with HIV infection who have no indication of disease progression at least 10 years after becoming infected. A cohort of such 'long-term nonprogressors' (LTNPs) has been established with the goal of determining whether people with prolonged asymptomatic HIV infection differ from people with clinical disease with respect to their immune status, their viral subtype or their specific immune response to HIV infection.

Up to 31 December 1997, 92 LTNPs had been recruited in to the study. Baseline results showed that β_2-microglobulin, a marker for immune activation within the blood, was a stronger predictor of CD4+ lymphocyte decline than viral load and the only factor significantly associated with CD4+ lymphocyte decline.[18] These findings indicated that serum concentration of β_2-microglobulin is a strong predictor of immunological progression in people with long-term asymptomatic HIV-1 infection and provides additional prognostic information to viral load in determining the risk of disease progression.

Investigations utilising polymerase chain reaction (PCR) techniques to determine the role of genetic factors in delaying disease progression also found that a mutation in the CCR-5 gene (CCR5Δ32) was significantly higher in LTNPs (35.9%) compared to rapid progressors (12.6%) and people with HIV and CD4 cell counts <500 cells/µl (12.5%).[19]

Genetic factors associated with HIV disease progression

Recent studies have shown that cellular entry of HIV-1 requires binding to both CD4 and to one of two distinct co-receptors: the alpha chemokine receptor (CXCR-4, fusin) or a beta chemokine receptor (CCR-5). A further receptor, CCR2b, has also been identified and implicated as a co-receptor used by dual tropic strains of HIV. Mutations in the genes coding for these co-receptors have been shown to delay disease progression in people infected with HIV.

The National Centre, in collaboration with Sydney's Westmead Hospital, commenced a study to examine the frequency of mutations in the genes coding for chemokine receptors in groups of people infected with HIV as well as their sexual partners.

Preliminary results showed that the number of observed cases of Pneumocystis carinii pneumonia (PCP), toxoplasmosis and cryptosporidiosis as a first AIDS-defining illness was substantially fewer in people with the CCR5Δ32 mutation than for those without the mutation (p=0.003), despite similar age, year of AIDS diagnosis and receipt of antiretroviral treatment.[20]

In addition, among individuals with the CCR5Δ32 mutation there were fewer cases of PCP, toxoplasmosis and cryptosporidiosis observed as a subsequent AIDS-defining illness compared to the number expected, based on rates measured in the same hospital during the same period

(3 observed vs 16 expected, O/E=0.2, 95%CI=0.02-0.6).

Studies to address the genetic basis for predisposition to AIDS dementia were also performed. A number of sites from the USA and Canada contributed as well. Results were then analysed as a collaborative exercise with Professor G Stewart at Westmead Hospital. The initial analyses of the potential protective effect of the heterozygous state for the CCR5Δ32 mutation showed that there was no effect. The study has now been expanded to examine other CCR5 and CCR2 mutations.

Kaposi's sarcoma and human herpes virus 8

Kaposi's sarcoma (KS) is caused by a newly discovered herpes virus, human herpes virus 8 (HHV-8). The finding that KS is caused by a herpes virus opens the way for the investigation of prophylactic treatment for this form of cancer in HHV-8 seropositive people. KS data are being collected in a trial of the anti-herpes agent adefovir, to assess whether treatment with this drug may decrease levels of HHV-8 and prevent the development of KS.[21-23]

During 1997, the National Centre arranged for the collection of detailed data on the occurrence of KS and HHV-8 infection within a randomised controlled trial of adefovir, which has *in-vitro* activity against HHV-8. This will enable the assessment of adefovir as a prophylactic agent against KS.

Non-AIDS-defining cancers in people with AIDS

Linkage of the NSW cancer and AIDS registers showed that rates of several non-AIDS-defining cancers occurred at increased rates in people with AIDS.[24] These included lip cancer, multiple myeloma, and Hodgkin's disease. Rates of Hodgkin's disease increased significantly close to AIDS diagnosis, suggesting that it is related to immune deficiency. Lip cancer has been previously described as occurring at increased rates in people receiving immunosuppressive therapy.

These data suggest that a wider range of cancers than previously described may occur at increased rates in people in AIDS. Specifically, the data suggest that Hodgkin's disease is an AIDS-associated cancer.

Case-control study of non-Hodgkin's lymphoma

During 1997, data analysis on this study of 219 cases of AIDS - non-Hodgkin's lymphoma (NHL) and 219 controls was performed. The project was larger than any previously reported study of risk factors for AIDS-NHL and was designed to identify risk factors for NHL other than immune deficiency.[25,26]

Although infection with Epstein-Barr virus (EBV) has been linked to NHL in people with AIDS, treatment with antiherpes agents at doses sufficient to suppress EBV replication did not decrease the risk of NHL. Neither clinical nor serological history of sexually transmitted diseases was related to NHL risk. Total dose of the antiretrovirals AZT, ddI and ddC was not associated with NHL risk, although receipt of combination therapy was associated with a non-significant reduction in risk.

Two groups of risk factors were identified. The first was the duration of immune deficiency. Although cases and controls had very similar current CD4 cell count, cases had been HIV infected and severely immune deficient for longer than the controls. The second risk factor identified was B cell stimulation. Serum globulin (a surrogate marker for immunoglobulin, which is produced by B cells) was higher in cases than controls, and this relationship preceded NHL development by at least 3 years. In addition, cases were more than twice as likely as controls to be HIV p24 antigen positive.

These data suggest that T cell immune deficiency and B cell immune stimulation are major risk factors for NHL in people with AIDS. It suggests that combination antiretroviral therapy may decrease the risk of NHL in people with AIDS through improving T cell counts and decreasing the B cell stimulation caused by HIV.

AIDS dementia complex: predictors of survival

As part of an ongoing case-control study of AIDS dementia complex (ADC) among St Vincent's Hospital Sydney AIDS cases, a case-series of 77 people with at least stage 1 ADC were analysed to assess overall survival and prognostic factors. Survival following ADC diagnosis was 8.0 months, with adverse prognostic factors including severe immunodeficiency (CD4 count < 50/mm^3) at presentation, presentation with ADC following AIDS and a history of prior zidovudine therapy. Other findings from this study include a uniform incidence of ADC over the period 1988-1994 and increased risk of ADC among older people with AIDS.

Hepatitis C

A review of the role of HCV-RNA polymerase chain reaction (PCR) in the management of HCV infection was undertaken for the Commonwealth Government (Department of Health and Family Services). This review outlined the benefit of utilisation of qualitative HCV-RNA PCR in determining both the state of infectiousness of persons with HCV infection and a group of people unlikely to develop advanced liver disease (positive HCV antibodies and negative HCV-RNA PCR).[28]

A review was also undertaken of predictors of response to interferon therapy, the current treatment for hepatitis C, including a comparison of risk factors for progression of hepatitis C related liver disease with predictors of non-response to interferon.[29]

References:

1 ***McDonald A, Cui J.*** *The pattern of diagnosed HIV infection and AIDS in women in Australia, 1984 - 1996. Australian HIV Surveillance Report 1997; 13(2):1-7.*

2 ***MacDonald M,*** *Wodak A,* ***Kaldor J*** *on behalf of the Collaboration of Australian Needle Exchanges. Hepatitis C antibody among IDU at Australian needle exchanges. First Australasian Conference on Hepatitis C, Sydney, March 1997.*

3 ***MacDonald M,*** *Wodak A,* ***Kaldor J*** *on behalf of the Collaboration of Australian Needle Exchanges. HIV and HCV incidence among IDU attending selected Australian needle exchanges. Australasian Society for HIV Medicine, Adelaide, November 1997.*

4 **MacDonald M** *on behalf of the state and territory coordinators and participating sites. Occupational exposure to blood and body fluids among health care workers in Australia. Australian Infection Control Conference, Melbourne, May 1997.*

5 **MacDonald M** *on behalf of the state coordinators and participating sites. Occupational exposure to blood and body fluids among health care workers in Australia. Health Care of Australia (NSW)/NSW Infection Control Resource Centre Infection Control Workshop, Sydney, November 1997.*

6 **MacDonald M**, *Watt P,* **Kaldor J** *on behalf of the state coordinators and participating sites. Prophylaxis and seroconversion after occupational exposure to blood borne viruses in Australian health care workers. Australasian Society for HIV Medicine, Adelaide, November 1997.*

7 **Law M**, **Cui J**, **Kaldor J**. *Estimating the effects of treatments on AIDS incidence. Australasian Society for HIV Medicine, Adelaide.*

8 *Richters J, Van der Ven P, Knox S,* **Prestage G**, *Crawford J, Kippax S. Sydney Gay Community Surveillance Report, No. 4. Update to December 1996. National Centre in HIV Social Research; Sydney, Australia.*

9 *Richters J, Van der Ven P, Knox S,* **Prestage G**, *Crawford J, Kippax S. Sydney Gay Community Surveillance Report, No. 5. Update to June 1997. National Centre in HIV Social Research; Sydney, Australia.*

10 **Prestage G**, *Knox S, Kippax S, Benton K, Mahat M, Crawford J, Richters J, French J, Van der Ven P. A demographic and behavioural comparison of three samples of homosexually-active men in Sydney, Melbourne and Brisbane. National Centre in HIV Social Research; Sydney, Australia.*

11 *Campbell D,* **Prestage G**, *Noble J, Kippax S, Crawford J, Van de Ven P, Kinder P, Cooper DA. Scales and indicator variables from the Sydney Men and Sexual Health (SMASH) study. National Centre in HIV Social Research; Sydney, Australia.*

12 *Becker NG,* **Cui J**. *Estimating a delay distribution from incomplete data, with application to reporting lags for AIDS cases. Statistics in Medicine 1997;16:2339-2347.*

13 *Vanhems P, Allard R,* **Cooper DA**, *Perrin L,* **Vizzard J**, *Hirschel B, Kinloch-de Lo es S, Carr A, Lambert J. Acute human immunodeficiency virus type 1 disease as a mononucleosis-like illness: is the diagnosis too restrictive? Clin Infect Dis 1997; 24:965-70.*

14 *Veugelers PJ,* **Kaldor J**, *Strathdee SA, Page-Shafer KA, Schechter MT, Coutinho RA, Keet IPM, van Griensven GJP. Incidence and prognostic significance of symptomatic primary human immunodeficiency virus type 1 infection in homosexual men. J Infect Dis 1997; 176:112-7.*

15 *Imrie A, Beveridge A, Genn w,* **Vizzard J**, **Cooper DA** *and the Sydney Primary Infection Study Group. Transmission of human immunodeficiency virus type-1 resistant to nevirapine and zidovudine. J Infec Dis 1997; 175:1502-6.*

16 *Veugelers PJ, Strathdee,* **Kaldor J**, *Page-Shafer KA, Moss AR, Schechter MT, Schellekens PT, Coutinho RA, can Griensven GJP. Associations of age, immunosuppression, and AIDS among homosexual men in the Tricontinental Seroconverter Study. JAIDS 1997; 14:435-41.*

17 *Prins M, Veugelers PJ et al. Comparison of progression and non-progression in injecting drug users and homosexual men with documented dates of HIV-1 seroconversion. AIDS 1997; 11:621 31.*

18 **Ashton LJ**, *Carr A, Cunningham PH, Roggensack M, McLean K,* **Law M**, *Robertson M,* **Cooper DA**, **Kaldor J** *for the Australian Long-term Nonprogressor Study Group. Predictors of progression in long-term nonprogressors. Australasian Society for HIV Medicine, November 1997.*

19 *Stewart GJ,* **Ashton LJ**, *Biti RA, Ffrench RA, Bennetts BH, Newcombe NR, Benson EM, Carr A,* **Cooper DA**, **Kaldor J** *for the*

Australian Long-term Nonprogressor Study Group. Increased frequency of CCR5Δ32 heterozygotes among long-term non-progressors with HIV-1 infection. AIDS 1997; 11: 1833-1838.

20 ***Ashton LJ**, Biti R, **Law M**, **Vizzard J**, Newcombe N, Ffrench R, **Stewart G**, **Cooper DA**, **Kaldor J** on behalf of the Sydney AIDS Study Group. CCR5 genotype, AIDS-defining illness, and survival after AIDS in a cohort of homosexual men. Australasian Society for HIV Medicine, November 1997.*

21 ***Grulich A**, Olsen S, **Hendry O**, Luo K, **Cooper D**, Wheng W, Gao SJ, Moore P, **Kaldor J**. Route of transmission of Kaposi's sarcoma-associated herpes virus. First National AIDS Malignancy conference, Bethesda, Maryland, USA, April 1997.*

22 ***Grulich A**. Advances in KS aetiopathogenesis (invited presentation). World Congress on Dermatology, Sydney.*

23 ***Grulich A**, Olsen S, **Hendry O**, Luo K, **Cooper D**, Wheng W, Gao SJ, Moore P, **Kaldor J** (November 1997, poster). KSHV: sexual transmission and prediction of development of KS. Australasian Society for HIV Medicine, Adelaide. Winner of award for best poster presentation in epidemiology.*

24 ***Grulich A**, Wan X, **Law M**, Coates M, **Kaldor J**. Rates of non-AIDS-defining cancers in people with AIDS. First National AIDS Malignancy conference, Bethesda, Maryland, USA April 1997.*

25 ***Grulich A**, Wan X, Bullard S, Finlayson R, Garsia R, Gold J, Lewis C, Milliken S, Cooper D, **Kaldor J**. Risk factors for AIDS associated NHL: a case-control study. Australasian Society for HIV Medicine, Adelaide, November 1997.*

26 ***Grulich A**, Wan X, Bullard S, Finlayson R, Garsia R, Gold J, Lewis C, Milliken S, **Cooper D**, **Kaldor J**. Risk factors for AIDS associated NHL: a case-control study. Clinical Oncology Society of Australia, Hobart, November 1997.*

27 ***Dore GJ**. Characteristics and prognostic factors for AIDS Dementia Complex. Ninth Australasian Society of HIV Medicine Conference, Adelaide, November 1997 [abstract 54].*

28 **Dore GJ**, **Kaldor J**, *McCaughan GW. Systematic review of the role of polymerase chain reaction in defining infectiousness among people infected with hepatitis C virus. BMJ 1997; 315:333-337.*

29 **Dore GJ**. *Targeting of interferon therapy for people with chronic hepatitis C. First Australasian conference on hepatitis C, Sydney, March 1997.*

THE CLINICAL TRIALS UNIT AND COMMUNITY HIV RESEARCH NETWORK

The dynamism of research in HIV medicine and its impact upon the research priorities of the clinical trials program was particularly evident during 1997. Considerable excitement greeted a number of very encouraging therapeutic advances arising from the examination of combination anti-retroviral therapy in randomised, controlled trials. In particular, for many, the ability to inhibit HIV replication in an infected individual to below the limits of detection resulted in therapeutic euphoria and research nihilism.

Despite this, important questions remained and the Clinical Trials Unit (CTU), the Community HIV Research Network (CHRN) and the network of investigators they support were able to continue recruitment into multicentre, randomised trials of antiretroviral therapy (see OZCombo program and CHRN025), to commence a multinational randomised trial of cytomegalovirus (CMV) prophylaxis in patients with advanced HIV disease (see ADHOC study) and to continue the preparation of studies that address fundamental (see IL-2 trial) or strategic (see INITIO) questions. This responsiveness to a dynamic area of medicine and ability to initiate research relatively quickly ensures that the research community in Australia continues to inform evidence based medicine that improves the delivery of healthcare to people with HIV in both Australia and around the world.

The advice and support of the Working Groups have been critical to the continued progress and priorities of the clinical trials program throughout the year. These Working Groups, composed of stakeholders in a particular area of therapeutic interest (eg antiretroviral therapy, opportunistic infections), are responsible for peer review of research conducted through the Centre. Furthermore, the Working Groups help generate additional support and advice from other parties such as the Commonwealth through the Clinical Trials and Treatments Advisory Committee (CTTAC). Participant investigators can use the Working Groups as a vehicle through which they can propose research programs and seek to have them developed. This process also ensures a research portfolio that reflects contemporary issues and priorities. In this light, the National Centre established two new Working Groups during 1997 - the Primary Infection Working Group and the Drug Resistance Working Group.

As previously noted, the 1997 Review recommended the integration of the CTU and CHRN into one single research group to further improve the efficiency and effectiveness of the Centre's support of clinical trials. In recent years, the disparity between research programs conducted at both hospital and community based clinical sites has diminished, with the same studies being conducted at both types of facilities. While the specific requirements of each location may differ, there is no longer a need for coordination to be supported by two separately structured organisations.

The experiences and expertise of the staff in each group will continue under one administrative structure.

In 1997, the Centre had extensive involvement and responsibility for the development of the updated standard of care guidelines, *Antiretroviral Therapy for HIV Infection: Principles of Use*.[30] These guidelines are based upon a thorough review of the available clinical evidence that describes approaches to therapy and management of HIV disease with antiretroviral therapy.

The contribution of the Centre to regional and international research continued during 1997. Through the HIV Netherlands Australia Thailand (HIVNAT) collaboration in Thailand, six individual studies were commenced to compare therapeutic strategies relevant to the Thai healthcare setting. The collaboration in Thailand has now extended to include additional teaching hospitals (see HIVNAT Collaboration). An international collaboration saw the establishment of a clinical trial program in Argentina involving six clinical sites in Buenos Aires. The Centre continued to support the established and highly productive links with HIV Connect and the Division of AIDS at the US National Institutes of Health (see primary infection studies).

The contribution of industry to the clinical trial portfolio is of critical importance. During 1997, when perhaps support for drug sales was more an imperative than support for research, the continued contributions of the pharmaceutical industry was particularly welcome.

The ADHOC trial (adefovir dipivoxil for HIV or CMV)

The ADHOC study is a randomised, controlled trial to assess whether adefovir dipivoxil prolongs survival and prevents CMV end-organ disease in patients with advanced HIV infection (CD4+ ‹ 100/µL or CD4+ ‹ 200/µL if CD4+ previously ‹ 50/µL at any time). The role of CMV and other herpes virus coinfections in HIV disease is a research area in which the National Centre network has made considerable contributions. Australia is expected to enrol approximately 350 patients in approximately 30 sites representing both community and hospital based researchers.

This protocol has led to the establishment of laboratory infrastructure at Prince of Wales Hospital. These laboratory facilities will be responsible for coordinating the Australian contribution to important virology substudies. In addition to international investigations that assess the impact of adefovir on measures of CMV and HIV replication, the National Centre has been integral in supporting local laboratory based investigations on the effects of adefovir on HHV8 replication and Kaposi's sarcoma.

OZCombo program

Randomised clinical trials no longer fulfil the objective of providing access to new experimental therapies. The rapid availability of new agents does

not, however, adequately define the place that the drug should have in the management of HIV disease. Investigator-driven trials that address these issues have an important place in the research portfolio of the National Centre.

The OZCombo program was developed to provide a uniform structure in which Australian and New Zealand investigators might continue to address important issues through research. OZCombo I and OZCombo II address questions that are signficant for patients and clinicians at a time when therapy is being considered, specifically what combinations of nucleoside analogues in addition to a protease inhibitor or a non-nucleoside reverse transcriptase inhibitor are associated with the most durable and effective suppression of virus replication and maintenance of immunocompetence. OZCombo III will address the question of what to do in terms of therapy when these patients begin to fail their initial regimen. The basic design and review process is now familiar to the group of investigators, in addition to the research and support staff who coordinate the studies. This allows for expedited establishment of the trials once a basic concept has been agreed upon and the various stakeholders have been engaged.

The program is subject to constant review through the Working Groups and other advisory structures. OZCombo represents one way in which the Centre facilitates and supports investigation of contemporary issues of clinical importance in randomised clinical trials.

HIVNAT

The HIV Netherlands Australia Thailand (HIVNAT) collaboration expanded considerably during 1997. The two studies commenced during 1996 were complimented with preparations for recruitment to begin in a further four randomised trials of combinations of antiretroviral therapy and immune based therapies. In support of this expanded research effort the National Centre was able to assist in the development of a GCRP training course for Thai researchers held in Thailand during February. Subsequently, the National Centre was able to second Dr Mark Newell to join the HIVNAT team at Chulalongkorn Hospital/Thai Red Cross Programme on AIDS to further develop the research portfolio. This year also saw the participation of a second hospital in Bangkok (Siriraj Hospital) in HIVNAT trials and plans were put in place for additional sites to be established in the near future.

Primary HIV infection studies

The Centre has continued its pivotal work in this area during 1997. The preparation and consolidation of a 5 year plan for the study of primary HIV infection has been facilitated by the establishment of the Primary HIV Infection Working Group and the award of funding from NIH. The 5 year plan envisions a series of continuous rolling protocols to evaluate therapeutic intervention during and after primary HIV infection.

Lamivudine for HIV/hepatitis B co-infection

Within the CAESAR study, a randomised placebo-controlled trial of the efficacy of lamivudine and loviride for HIV disease, a sub-study was performed to assess the efficacy and safety of lamivudine among people co-infected with HIV/hepatitis B. Although lamivudine has been shown to be effective in people with hepatitis B (HBV) infection, this was the first randomised assessment of its efficacy for people with HIV/HBV co-infection. The sub-study demonstrated a significant effect on HBV activity in those receiving lamivudine, including a reduction in HBV DNA and improvement in liver enzymes following 52 weeks of therapy. Data were presented at the ICAAC conference, Toronto and a Satellite symposium of the European AIDS Conference, Hamburg.[31]

Neurology

The National Centre's Honorary Senior Research Fellow, A/Prof Bruce Brew, continued to develop important work on the pathogenesis and treatments of HIV-related neurological conditions, with particular emphasis on AIDS dementia.[32-34]

Among the more prominent projects in 1997 was the completion of a randomised double-blind placebo-controlled trial of the GlaxoWellcome drug abacavir in the treatment of AIDS dementia complex (ADC). This was a multicentre international trial and so far is the largest ever completed AIDS dementia trial. The National Centre's site presented the highest number of patients in the trial compared to sites in New York, San Francisco, Baltimore, San Diego, Chapel Hill, St Louis, Los Angeles, Toronto, Winipeg and London. A/Prof Brew is the protocol chair.

Planning was also undertaken to establish the following trials: stavudine for AIDS dementia (an open label international multicentre study), memantine for AIDS dementia (this will be conducted through the AIDS Clinical Trials Group in the USA), carnitine as treatment for HIV-associated peripheral neuropathy (this is in collaboration with Professor de Simone in Italy).

In collaboration with staff at the Centre for Immunology, St Vincent's Hospital, Sydney, the National Centre conducted a study that examined the nature and significance of resistance patterns to nucleoside reverse transcriptase inhibitors in the blood and cerebrospinal fluid in a large cohort of patients with AIDS dementia, opportunistic infections and other conditions. The study showed that the two compartments of blood and cerebrospinal fluid behave independently in a sizeable number of patients with individuals displaying resistance in one compartment and not in the other.[35-37]

Further progress was made on the development of an *in-vitro* model of AIDS dementia complex, using human fetal neural cells. It demonstrated that the neuronal toxicity in such a system can be significantly ameliorated by an inhibitor of quinolinic acid synthesis.

Similarly, the finding that quinolinic acid production can be modulated by a variety of cytokines thereby emphasising its importance in the pathogenesis of inflammatory brain diseases, especially AIDS dementia complex, was observed.[39,40]

Completed Research

A number of research programs were published during 1997 that completed earlier studies, while other publications produced this year reflected the broad contribution of the National Centre research group to HIV medicine. The National Centre continued to report on the impact of potent antiretroviral therapy on immunological measures of HIV disease and clinical outcome of toxicities and participated in discussions concerning immunoreconstitution.[41-45]

The National Centre also played a role in the development of international consensus statements on antiretroviral therapy.[46] Clinical trials completed during 1995-96 were published during 1997: the CAESAR Study describing the efficacy of 3TC;[47] the inability of monotherapy nevirapine to sustain suppression of HIV replication even at high doses;[48] and a trial of zidovudine in combination with zalcitabine.[49] Data derived from the virology substudy of the Delta trial were also published, describing the only phase I trial that prospectively recruited a cohort of high risk participants.[50,51] The National Centre network's continued involvement in primary HIV infection studies was illustrated by publications detailing transmission of multidrug resistant HIV and an additional examination of the clinical features of the acute retroviral syndrome.[52,53] The network also contributed to publications describing the use of liposomal amphotericin B in the treatment of cryptococcal meningitis.[54]

References:

30 *Antiretroviral Therapy for HIV infection: Principles of Use. Clinical Trials and Treatments Advisory Committee. 1997. (**Smith D**, **Clezy K** - writing committee)*

31 ***Dore GJ**, **Cooper DA**, Goh L, Barrett C for the CAESAR Coordinating Committee.*

Effect of lamivudine on HIV/hepatitis B co-infected patients in the CAESAR study. Sixth European Conference on Clinical Aspects and Treatment of HIV Infection, Hamburg, October 1997 (satellite symposium).

32 *Adcock JE, Davies MA, Turner J, Pell M, **Brew BJ**. Progressive multifocal leukoencephalopathy: a retrospective study of 30 cases. J Clin Neuroscience 1997;4:463-468.*

33 *Markus R, **Brew BJ**, Turner J, Pell M. Successful outcome with aggressive treatment of acute haemorrhagic leukoencephalitis. J Neurol Neurosurg Psychiatry 1997;63:551 (letter).*

34 ***Brew BJ**. AIDS dementia complex and its prevention. Antiviral Therapy 1997;2(suppl 3):69-73.*

35 ***Brew BJ**, **Pemberton L**, Cunningham P, **Law MG**. Levels of human immunodeficiency virus type 1 RNA in cerebrospinal fluid correlate with AIDS dementia stage. J Infect Dis 1997;175:963-966.*

36 *Cunningham AL, Naif H, Saksena N, Lynch G, Chang J, Li S, Jozwiak R, Alali M, Wang B, Fear W, Sloane A, **Pemberton L**, **Brew B**. HIV infection of macrophages and the pathogenesis of AIDS dementia complex: interaction of the host cell and viral genotype. J Leukoc Biol 1997;62:117-125.*

37 *Dick AD, Pell M, **Brew BJ**, Foulcher E, Sedgwick JD. Direct ex vivo flow cytometric analysis of human microglial cell CD4 expression: examination of central nervous system biopsy specimens*

from HIV-seropositive patients and patients with other neurological disease. AIDS 1997;11:1699-1708.

38 ***Kerr SJ**, Armati PJ, **Pemberton LA**, Smythe G, Tattam B, **Brew BJ**. Kynurenine pathway inhibition reduces neurotoxicity of HIV-1-infected macrophages. Neurology 1997;49:1671-1681.*

39 ***Pemberton LA**, **Kerr SJ**, Smythe G, **Brew BJ**. Quinolinic acid production by macrophages stimulate with interferon γ tumor necrosis factor α and interferon α. J Interferon Cytokine Res 1997;17:589-595.*

40 ***Pemberton LA**, **Kerr SJ**, **Brew BJ**. HIV-1 gp120 does not induce quinolinic acid production by macrophages. J Neurovirol 1997;3:86-87 (letter).*

41 *Carr A, Brown D, **Cooper DA**. Portal vein thrombosis in patients receiving indinavir, an HIV protease inhibitor. AIDS 1997;11;1657-1658 (letter).*

42 *Carr A, **Cooper DA**. CD8 T-cell response to antiretroviral therapy. (Authors' reply) J Acquir Immune Defic Syndr Hum Retrovirol 1997;15:176-177 (letter).*

43 *Carr A, **Cooper DA**. Cytomegalovirus retinitis after initiation of highly active antiretroviral therapy. Lancet 1997;350:589 (letter).*

44 *Carr A, **Cooper DA**. Restoration of immunity to chronic hepatitis B infection in HIV-infected patient on protease inhibitor. Lancet 1997;349:995-996 (letter).*

45 ***Emery S**, Lane HC. Immune reconstitution in HIV infection. Curr Opin Immunol 1997;9:568-572.*

46 *de Jong MD, Boucher CAB, **Cooper DA**, Galasso GJ, Gazzard B, Lange JMA, Montaner JS, Richman DD, Thomas HC. Summary of the II international consensus symposium on combined antiviral therapy and implications for future therapies. Antiviral Res 1997;35:65-82.*

47 *CAESAR Coordinating Committee (**Clezy K**, **Smith D**, investigators; **Cooper DA** principal investigator and corresponding author). Randomised trial of addition of lamivudine or lamivudine plus loviride to zidovudine-containing regimens for patients with HIV-1 infection: the CAESAR trial. Lancet 1997;349:1413-1421.*

48 *de Jong MD, Vella S, Carr A, Boucher CA, **Imrie A**, French M, Hoy J, Sorice S, Pauluzzi S, Chiodo F, Weverling GJ, van der Ende ME, Frissen PJ, Weigel HM, Kauffmann RH, Lange JM, Yoon R, Moroni M, Hoenderos E, Leitz G, **Cooper DA**, Hall D, Reiss P. High-dose nevirapine in previously untreated human immunodeficiency virus type 1-infected persons does not result in sustained suppression of viral replication. J Infect Dis 1997;175:966-970.*

49 *Moyle GJ, Bouza E, Antunes F, **Smith D**, Harris R, Warburg M, Walker M. Zidovudine monotherapy versus zidovudine plus zalcitabine combination therapy in HIV-positive persons with CD4 cell counts 300-500 cells/mm3: a double blind controlled trial. Antiviral Therapy, 1997; 2:229-236.*

50 *Brun-Vezinet F, Boucher C, Loveday C, Deschamps D, Fauveau V, Izopet J, Jeffries D, Kaye S, Krzyanowski C, Nunn A, Schuurman R, Seigneurin J-M, Tamalet C, Tedder R, Weber J, Weverling G-J, the National Virology Groups, and the Delta Virology Working Group and Coordinating Committee (**Cooper D** member). HIV-1 viral load, phenotype, and resistance in a subset of drug-naive participants from the Delta trial. Lancet 1997;350:983-990.*

51 ***Kelleher AD**, **Emery S**, Cunningham P, Duncombe C, Carr A, Golding H, Forde S, Hudson J, Roggensack M, Forrest BD, **Cooper DA**. Safety and immunogenicity of UBI HIV-1MN octameric V3 peptide vaccine administered by subcutaneous injection. AIDS Res Hum Retroviruses 1997;13:29-32.*

52 ***Imrie AA**, Beveridge A, Genn W, **Vizzard J**, **Cooper DA** and the Sydney Primary Infection Study Group. Transmission of human immunodeficiency virus type-1 resistant to nevirapine and zidovudine. J Infect Dis 1997;175:1502-1506.*

53 ***Vanhems P**, Allard R, **Cooper DA**, Perrin L, Vizzard J, Hirschel B, Kinloch-de Loëes S, Carr A, Lambert J. Acute human immunodeficiency virus type 1 disease as a mononucleosis-like illness: is the diagnosis too restrictive? Clin Infect Dis 1997;24:965-970.*

54 *Leenders ACAP, Reiss P, Portegies P, **Clezy K**, Hop WCJ, Hoy J, Borleffs JCC, Allworth T, Kauffmann RH, Jones P, Kroon FP, Verbrugh HA, de Marie S. Liposomal amphotericin B (AmBisome) compared with amphotericin B both followed by oral fluconazole in the treatment of AIDS-associated cryptococcal meningitis. AIDS 1997;11:1463-1471.*

CLINICAL TRIALS 1997

ANTIRETROVIRAL THERAPY

Primary HIV infection

CHRNO14

Description	Open label study to determine the safety and efficacy of combination antiretroviral therapy (AZT + 3TC + IDV) in patients with acute HIV infection.
Status	opened July 1996, closed May 1997
Sites	8
Enrolled/target	16/8
Sponsor	MSD/NCHECR
Contact	Pat Grey

CHRN 015

Description	Open label study to determine the antiretroviral activity and safety of nelfinavir + zidovudine + lamivudine in patients with primary HIV infection.
Status	opened May 1997
Sites	8
Enrolled/target	19/24
Sponsor	Agouron
Contact	Pat Grey

Chronic HIV infection

OZCombo I

Description	A randomised comparison of three triple combinations of antiretroviral agents including indinavir in patients who are antiretroviral naive.
Status	opened December 1996, closed December 1997
Sites	27 sites in Australia and New Zealand
Enrolled/target	109/120
Sponsor	NCHECR
Contact	Jeff Hudson

OZCombo II

Description	A randomised comparison of three triple combinations of antiretroviral agents including nevirapine in patients who are antiretroviral naive.
Status	opened August 1997
Sites	same as OZCombo I
Enrolled/target	27/120

Sponsor	NCHECR
Contact	Jeff Hudson

CHRN 025

Description	A randomised, open label comparison of stavudine, SGC-saquinavir and delavirdine versus stavudine, SGC-saquinavir and ritonavir versus stavudine, SGC-saquinavir and nelfinavir in HIV positive, treatment experienced patients.
Status	opened September 1997
Sites	27
Enrolled/target	25/150
Sponsor	Roche/Bristol Myers Squibb/Abbott/Pharmacia & Upjohn/NCHECR
Contact	Gillian Hales

BI 1036

Description	Long term follow-up of nevirapine use in patients who participated in randomised trials of nevirapine.
Status	opened 1994
Sites	9
Enrolled	7
Sponsor	Boehringer Ingelheim
Contact	Pat Grey

BI 1090

Description	A randomised, placebo-controlled trial to evaluate the safety and efficacy of nevirapine in the prevention of AIDS when used in combination with 3TC and stable background nucleoside analogue therapy.
Status	opened March 1996
Sites	7
Enrolled	14
Sponsor	Boehringer Ingelheim
Contact	Pat Grey

OPPORTUNISTIC INFECTIONS

ADHOC

Description	A randomised controlled study of the safety and efficacy of the adefovir dipivoxil in patients with advanced HIV infection (CD4+ ‹100 cells/µl or CD4+ ‹200 cells/µl if previously ‹50 cells/µl).
Status	opened September 1997
Sites	30

Enrolled/target	15/350
Sponsor	NCHECR/HIV Connect/UNSW/Gilead Sciences
Contact	Denise Fagan

Abacavir Viral Resistance Testing Study

Description	An open, compassionate study of viral resistance in patients with advanced HIV infection on abacavir.
Status	opened 1997
Sites	around Australia
Enrolled	45
Sponsor	NCHECR/GlaxoWellcome
Contact	Kate Clezy

ONCOLOGY

Dox-SL for AIDS-related Kaposi's sarcoma

Description	An open, compassionate use program registered with the TGA under the Special Access Scheme.
Status	open
Sites	9
Enrolled/target	National: 14/15
Sponsor	Sequus Pharmaceuticals
Contact	Mark Newell/Denise Fagan

Retinoid Clinical Trial

Description	An open label follow-up trial of topical 9-cis-retinoic acid gel in the palliative treatment of cutaneous AIDS-related Kaposi's sarcoma.
Status	open
Sites	3
Enrolled/target	52/63
Sponsor	Allergan
Contact	Denise Fagan

STUDIES IN PREPARATION

QUEST

Description	A randomised study of induction therapy with 4 drugs followed by maintenance therapy with three drugs then treatment discontinuation in primary HIV infection.
Status	in preparation
Sites	9
Target	12
Sponsor	Glaxo Wellcome
Contact	Pat Grey

International primary infection cohort

Description	An international collaboration to examine aspects of natural history, treatment, therapeutic strategy, immunology and virology inpatients with primary HIV infection.
Status	protocols in preparation to commence in 1998
Sites	at least 8
Target	140 internationally
Sponsor	NIH/NCHECR/University of Washington, Seattle USA
Contact	Pat Grey

PIILR

Description	An open label, multicentre, randomised study of the reversibility of HIV-protease induced lipodystrophy in HIV-1 subjects.
Status	planned commencement May 1998
Sites	15
Target	80
Sponsor	NCHECR/UNSW
Contact	Jeff Hudson

OZCombo 3

Description	A randomised comparison of treatment intensification versus switching in patients who have failed an initial antiretroviral regimen containing a protease inhibitor.
Status	in preparation
Sites	for review
Target	approximately 80 patients
Sponsor	NCHECR
Contact	Don Smith

INITIO

Description	A randomised trial to evaluate different therapeutic strategies of combination therapy for HIV infection.
Status	in preparation
Sites	for review
Target	100
Sponsor	HIV Connect/NCHECR
Contact	Sean Emery

ESPRIT

Description	An international randomised trial of interleukin-2 versus no interleukin-2 in patients with HIV infection and CD4+ cell counts >350/µl.
Status	subject of international review

Sites	30
Target	200
Sponsor	NCHECR/NIH-DAIDS
Contact	Sean Emery

Avipox vaccine

Description	A randomised controlled evaluation of the safety and biological activity of Avipox virus expressing HIV gag-pol and interferon-gamma in HIV-1 infected subjects.
Status	in preparation
Sites	2
Target	30
Sponsor	Virax Pty Ltd/CTTAC
Contact	Sean Emery

IL2 in Non-Hodgkins Lymphoma

Description	Pilot study of low dose IL-2 in AIDS-related lymphoma.
Status	scheduled to commence recruitment in May 1998
Sites	3
Target	10
Sponsor	NIH/NCHECR
Contact	Denise Fagan

Eastern Co-operative Oncology Working Group (USA)

Description	Phase III randomised study of taxol versus doxil in patients with AIDS-related Kaposi's sarcoma.
Status	in preparation
Sites	5
Target	30
Sponsor	ECOG/NCHECR
Contact	Denise Fagan

COMPLETED STUDIES

Retinoic acid gel

Description	An international, multicentre, randomised placebo-controlled study of 9-cis-retinoic acid, in a gel formulation which will be used to locally treat early Kaposi's sarcoma.
Status	opened September 1996, closed September 1997
Sites	5
Enrolled/target	63/48
Sponsor	Allergan

Cidofovir

Description	An open label study of the use of cidofovir for the treatment of CMV retinitis in patients failing alternative therapies.

Status	open mid-1996, closed 1997
Sites	SVH
Enrolled	3
Sponsor	Gilead Sciences/NCHECR

Opal

Description	This was a long-term follow-up of a cohort of patients who participated in three early placebo-controlled studies of AZT.
Status	closed in 1997
Sites	20
Enrolled	84% of original cohort
Sponsor	NCHECR/MRC

Itraconazole fungal prophylaxis

Description	International randomised placebo-controlled trial of itraconazole for prevention of invasive fungal infections.
Status	closed in 1997
Sites	24
Enrolled	285
Sponsor	Janssen-Cilag

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David A Cooper DSc, MD, FRACP, FRCPA
Professor, Clinical School,
St Vincent's Hospital
The University of New South Wales

Lou McCallum
Executive Director
Australian Federation of AIDS Organisations

Peter McDonald MB BS, FRCPA, MRACP, FRACP, FASM
Professor of Microbiology and Infectious Diseases, Flinders University; Head, Dept. Microbiology and Infectious Diseases, Flinders Medical Centre, Adelaide

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General Practitioner, Sydney

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Head, National Centre for Disease Control Commonwealth Dept. Health & Family Services Canberra

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Director, AIDS and Infectious Diseases Branch, NSW Dept. Health

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A/Professor of Medicine
Director of Clinical Immunology
Dept. Clinical Immunology and Allergy
Westmead Hospital, Sydney

Observers

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Professor, School of Community Medicine
The University of New South Wales

Don Smith MB ChB, MD
Director, Community HIV Research Network
Sydney

Bronwen Turner BA (Secretary)
Manager, Finance and Administration
National Centre in HIV Epidemiology and Clinical Research

Clinical Trials and Treatments Advisory Committee

Peter McDonald MB BS, FRCPA, MRACP, FRACP, FASM (chair)
Professor of Microbiology and Infectious Diseases, Flinders University; Head, Dept. Microbiology and Infectious Diseases, Flinders Medical Centre, Adelaide

Jonathan Anderson MB ChB, MRCGP, DRCOG, Dip Ven, MSc (Med Sci)
General Practitioner, Melbourne

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Monash University; Director, AIDS Pathogenesis Unit Macfarlane Burnet Centre, Melbourne

Martyn French MB ChB, MD, FRCPath, FRCP, FRACP
Clinical Immunologist and Head
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Melbourne
Janice Hirshorn BSc(Hons), PhD
Director, Policy & Strategy Development
Australian Pharmaceutical Manufacturers Association

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UNSW Consultant,
Hunt & Hunt Solicitors (Syd)

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Executive Director
Australian Federation of AIDS Organisations

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John Primrose MB BS(Hons), FRACP
Health Benefits Branch
Commonwealth Dept. of Health and Family Services, Canberra

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Communicable Diseases Unit, Brisbane

Steve Wesselingh MB BS, FRACP, PhD
Infectious Diseases Consultant
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Bill Whittaker
Consumer Representative
NPLWA

Ex-officio/observers

Robert Batey MD, BSc(Med), MB BS, FRACP, FRCP (UK)
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Professor of Medicine
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Kate Clezy MB BS, FRACP
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Chairman, NSW Antidiscrimination Board

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National HIV Surveillance Committee
Jan Savage MB BS
Coordinator NT AIDS/STD Programs
Territory Health Services
Northern Territory Dept. Health and Community Services, Darwin

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Sandy Thompson BSc Med (Hons), MB BS, PhD, FAFPHM
Macfarlane Burnett Centre of Medical Research, Fairfield

Secretary
Ann McDonald BSc, MPH
National Centre in HIV Epidemiology and Clinical Research

Clinical Trials Unit Working Groups

The Antiretroviral Working Group

Suzanne M Crowe MB BS(Hons), FRACP (chair)
Director, AIDS Pathogenesis Research Unit The Alfred Hospital, Melbourne

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Adrian Mindel MB BCh, MSc(CTM), MD, FRCP, FRACP, FACVen
Professor of Sexual Health Medicine
The University of Sydney and
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Head, Academic Unit of Sexual Health
Sydney Hospital

Don Smith MB ChB, MD
Director, Community HIV Research Network, Sydney

The Opportunistic Infections Working Group

Philip Jones MB BS, PhD, FRACP (chair)
Medical Director
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Prince Henry Hospital, Sydney

Anthony Allworth MB BS, FRACP, FRCPA, FACTM, MASM
A/Director, Infectious Diseases Unit
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Kate Clezy MB BS, FRACP
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David Shaw MB BS, FRACP
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AIDS Action Council, Canberra

The Oncology Working Group
Sam Milliken MB BS, FRACP, FRCPA (chair)
Staff Specialist, Dept. Haematology
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The University of New South Wales

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David Goldstein MB BS, FRACP
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Tony Maynard FACBS
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Gordon Ada AO, DSc, FAA (chair)
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School of Behaviour Sciences
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Director, National Centre in HIV Social Research;
Director, National Priority Program: Prevention and Education Issues (Gay and Homosexually Active Men)
Sydney

John Mills BSc, MD, FACP, FRACP
Professor of Microbiology
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University of California San Francisco;
Director, Macfarlane Burnet Centre for Medical Research, Melbourne;
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Melbourne

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Head of Viral Engineering
Division of Cell Biology

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Graeme Stewart BSc(Med), MB BS, PhD, FRACP, FRCPA
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Director of Clinical Immunology
Dept. Clinical Immunology and Allergy
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COLLABORATING ORGANISATIONS 1997

National

- Australian Defence Forces
- Australian Federation of AIDS Organisations, Sydney
- Australian Infection Control Association
- Australian Institute of Health and Welfare
- Australian IV League
- Australian Medical Association
- Australian National Council on AIDS and Related Diseases, Canberra
- Australian Nursing Federation
- Australian Paediatric Surveillance Unit, Sydney
- Australian Red Cross Society Blood Transfusion Service, Melbourne
- Dept. Health and Family Services, Canberra
- Haemophilia Foundation
- Institute of Actuaries
- National Centre in HIV Social Research, Sydney
- National Centre in HIV Virological Research, Melbourne
- National Centre for Research into the Prevention of Drug Abuse, Perth
- National Drug and Alcohol Research Centre, Sydney
- National Methadone Policy Committee
- National Serological Reference Laboratory, Melbourne
- Worksafe Australia

Australian Capital Territory

- ACT Corrective Services Policy and Coordination, Woden
- ACT Drug Referral and Information Centre
- ACT IV League Needle Exchange
- Australian National University, Canberra
- Calvary Hospital
- Communicable Diseases Control, Public Health Division, ACT Health, Canberra
- Gilmore Clinic, Woden Valley Hospital
- Interchange General Practice, Canberra City
- John James Memorial Hospital
- Red Cross Blood Transfusion Service, Canberra
- Woden Valley Hospital, Garran

New South Wales

- AIDS/Infectious Diseases Branch, NSW Health
- AIDS Council of NSW (ACON)
- Albion Street Clinic, Surry Hills
- Australian Red Cross Society Blood Transfusion Service, NSW Division
- Bankstown/Lidcombe Hospital
- Blacktown Hospital
- Bloomfield Hospital
- Bigge Park Medical Centre, Liverpool
- Blacktown and Kendall Centres (Western Sydney AIDS Prevention Services)
- Cancer Control Information Centre, NSW Cancer Council
- Centre for Immunology, St Vincent's Hospital
- Eastern Sydney Division of General Practice
- Goulburn Base Hospital
- Gosford Sexual Health Clinic
- Grosvenor Clinic, Woollahra
- Holdsworth House General Practice, Sydney
- Illawarra Sexual Health, Wollongong
- Immediate Health Care Centre, Darlinghurst

- Jacaranda House, Liverpool
- John Hunter Hospital, Newcastle
- Kirketon Road Centre, Kings Cross
- Lake Munmora Doctors' Centre
- Leichhardt Family Medical Practice
- Lismore Base Hospital
- Livingstone Road Clinic, Marrickville
- Liverpool Hospital
- Macquarie Hospital Oliver Latham Laboratory
- Mount Druitt Hospital
- Nowra Hospital
- Newcastle Clinic, Newcastle
- Nineways Specialist Clinic, Broadmeadow
- Newtown Needle Exchange
- Northern Rivers Needle Exchange
- Paediatric HIV Services Unit, Sydney Children's Hospital
- Parramatta Sexual Health Clinic, Parramatta Health Service, Westmead Hospital
- People Living with HIV/AIDS (PLWHA)
- Praxis Centre, Coffs Harbour
- Prince Henry/Prince of Wales Hospitals
- Prison Medical Service, NSW Health
- Quay Street Medical Centre, Haymarket
- RACGP NSW Branch
- Royal Hospital for Women
- Royal North Shore Hospital
- Royal Prince Alfred Hospital
- Sexual Health Clinic, Nepean Hospital
- Sexual Health Clinic, Port Kembla Hospital
- Sexual Health Clinic, Shoalhaven District Hospital
- Sexual Health Clinic, St George Hospital
- Sexual Health Service, Royal Newcastle Hospital
- SHAIDS, Lismore
- St George Needle Exchange, Kogarah
- St Leonards Medical Centre
- St Vincent's Hospital
- Strathfield Private Hospital
- Sydney Sexual Health Centre, Sydney Hospital
- Tamworth Hospital
- Taylor Square Private Clinic
- The Edgeware Family Practice, Enmore
- Quay Street Medical Centre, Haymarket
- Royal Prince Alfred Hospital, Camperdown
- Victoria Street Family Practice, Potts Point
- Waterloo Medical Centre
- Wentworth Sexual Health Centre
- Westmead Hospital
- 8 Burwood Road, Burwood
- 60 Albert Street, Strathfield
- 68 Hunter Street, Lismore
- 75 Fitzroy Street, Surry Hills
- 112 Grafton Street, Coffs Harbour
- 166 Missenden Road, Newtown
- 229 Oxford Street, Darlinghurst
- 407 Doctors, Surry Hills
- 428 George Street, Sydney

Northern Territory

- AIDS Council of Central Australia
- Australian Red Cross Blood Transfusion Service, Darwin
- Clinic 34, Royal Darwin Hospital
- Communicable Diseases Centre, Royal Darwin Hospital
- Department of Correctional Services, Darwin
- Northern Territory AIDS Council
- Royal Darwin Hospital
- Territory Health Services, Casuarina

Queensland

- AIDS Medical Unit, Queensland Health
- Australian Red Cross Society Blood Transfusion Service, Queensland Division
- Biala and QuIVAA Needle Exchanges, Brisbane
- Blackhall Terrace Clinic, Nambour General Hospital
- Brisbane Sexual Health Clinic
- Cairns Base Hospital
- GAIN Needle Exchange, Gold Coast
- Gladstone Road Medical Centre, Brisbane
- Gold Coast Sexual Health Clinic, Miami
- Holy Spirit Hospital
- Ipswich Hospital
- Kobi House, Toowoomba Base Hospital
- Logan Hospitals
- Nambour Hospital
- Peel Street Clinic, South Brisbane
- Princess Alexandra Hospital
- Queensland Health
- Queensland Corrective Services Commission
- Queensland AIDS Council (QAC)
- Royal Brisbane Hospital, Herston
- 1 Mainsail Street, Currumbin

South Australia

- Australian Red Cross Society Blood Transfusion Service, South Australian Division, Adelaide
- Department for Correctional Services, Adelaide
- Drug and Alcohol Services Council
- Flinders Medical Centre, Adelaide
- Lyell McEwin Health Service
- SAVIVE, Noahlunga and Salisbury Needle Exchanges
- South Australian Health Commission, Adelaide
- STD Control Branch, Adelaide
- The North Terrace Clinic, Adelaide
- The Royal Adelaide Hospital
- Warrinalla Clinic, Adelaide
- 13a Edwards Street, Adelaide

Tasmania

- Corrective Services Division, Hobart
- Public and Environmental Health, Department of Community and Health Services, Hobart
- Launceston General Hospital
- Royal Hobart Hospital
- Tasmanian AIDS Council
- 102 Collins Street, Hobart

Victoria

- Barkly Street Clinic,
- Beleura Private, Box Hill, Mildura, St John of God, St Vincent's and West Gippsland Hospitals
- Forensic Health Service, Pentridge Hospital, Coburg
- La Trobe University Dept. Statistics
- Ludwig Oncology Institute, Austin Hospital, Melbourne
- Macfarlane Burnet Centre for Medical Research, Fairfield
- Melbourne Inner Needle Exchange
- Melbourne Sexual Health Centre, Carlton
- Middle Park Clinic, Middle Park
- Peter McCallum Cancer Institute, Melbourne
- Monash Medical Centre, St Kilda East
- Mountfield Clinic, Hawthorn East
- Positive Living Centre
- Prahran Market Clinic, Melbourne
- Red Cross Blood Bank, Melbourne
- Royal Children's Hospital, Melbourne
- Royal Melbourne Hospital
- St Kilda Crisis Centre
- The Alfred Health Care Group
- The Alfred Hospital, Melbourne
- The Carlton Clinic, Melbourne

- The Fit Shop, Frankston
- Turning Point
- Victorian AIDS Council/Gay Men's Health Centre (VAC)
- Western Region AIDS and Hepatitis Prevention

Western Australia

- Australian Red Cross Society Blood Transfusion Service, Western Australian Division, Perth
- Carrellis Centre
- Communicable Diseases Control Unit, Perth
- Dept. of Medicine, Freemantle Hospital
- Dept. Clinical Immunology, Royal Perth Hospital
- Lindisfarme Medical Group, Mt Lawley
- Ministry of Justice, Strategic and Specialist Services Division, Perth
- Silver Chain Community Health Care
- Mount, St John of God, Murdoch and Sir Charles Girdiner Hospitals
- Royal Perth Hospital
- Western Australia AIDS Council
- 2/689 Beaufort Street, Mt Lawley

International

- Academic Medical Centre, University of Amsterdam
- Agence Nationale pour la Recherche de SIDA (ANRS), Paris, France
- AIDS Clinical Trials Group, DAIDS, NIH, Washington, USA
- Auckland Hospital, New Zealand
- Canadian Trials Network (CTN), Vancouver BC, Canada
- Centre for AIDS Research and Education, University of California Los Angeles
- Centre Regional D'Essais Clinique VIH, Montreal, Canada
- Chelsea Hospital, London
- Chulalongkorn University Hospital, Bangkok, Thailand
- Columbia University, New York, USA
- Community Program for Clinical Research in AIDS (CPCRA), USA
- Department Medecine Sociale et Preventive, Universite de Montreal, Canada
- Division Infectious Diseases, Geneva Hospital, Switzerland
- Departments of Genitourinary Medicine and Sexual Health, Kings College Hospital, London
- European Centre for the Epidemiological Monitoring of AIDS, St-Maurice, France
- Glasgow Royal Infirmary
- HIV Netherland Australia Thailand Research Collaborative (HIVNAT)
- Hvidovre Hospital, Copenhagen
- International AIDS Society
- Istituto Superiore di Sanita, Rome
- Mae Chan District Hospital, Chiang Rai Province, Thailand
- Medical Research Council, London
- National Institutes of Health (NIH), USA
- National Institute of Allergy and Infectious Diseases (NIAID), USA
- National AIDS Therapy Evaluation Centre, Amsterdam, The Netherlands
- Royal Free Hospital, London
- Royal Sussex County Hospital, UK
- San Francisco General Hospital, USA
- Siriraj Hospital, Bangkok, Thailand
- South Hospital, Stockholm, Sweden
- Thai Red Cross
- UNAIDS, World Health Organisation, Geneva
- University of Munich, Germany

- Waikato Hospital, New Zealand
- Wellington Hospital, New Zealand
- Westminster Hospital, London
- WHO Western Pacific Regional Office, Manila, Philippines

Collaborating commercial organisations

- Abbott
- Allergan
- Almedica
- Amgen
- Becton Dickinson
- Boehringer Ingelheim
- Bristol-Myers Squibb
- British Biotechnology
- Chiron Therapeutics
- Commonwealth Serum Laboratories
- COVANCE International
- David Bull
- Faulding
- Gilead Sciences
- Janssen-Cilag
- Merck Research Laboratories
- Parexel
- Pfizer
- Pharmacia and Upjohn
- Quintiles
- Roche Diagnostics
- Roche Products
- Sequus Pharmaceuticals
- United Biomedical Inc.
- Vestar
- GlaxoWellcome

TERTIARY TEACHING 1997

Professor John Kaldor

January:	UNSW School of Community Medicine. Fourth year medical
students:	Epidemiology.
1st semester:	UNSW Master of Public Health. Coordinate subject: Epidemiology (full semester).
March:	UNSW Master of Community Health. Epidemiology of Ageing.
	Fiji. WHO Regional Office for the Western Pacific Workshop on prevention and control of sexually transmitted diseases in the Pacific Island countries. Workshops and lectures on STD surveillance.
May to August:	UNSW Indonesia-Australia Specialised Training Project in HIV/AIDS Management and Development.
May:	New South Wales College of Nursing. Postgraduate certificate in oncological nursing course. Epidemiology of HIV/AIDS.
June:	Sydney Hospital post-registration nursing course. Introduction to epidemiology. HIV epidemiology, international/national findings.
2nd semester:	UNSW Master of Public Health. Coordinate subject: Epidemiology (full semester).
	UNSW Master of Public Health. Coordinate subject: Case studies in epidemiology (full semester).
	UNSW Master of Public Health. Coordinate subject: HIV/AIDS: Challenging and changing health care systems (full semester).
September:	University of Sydney Master of Health Law. Ethics of health research.
	UNSW/Sydney University Master of Medicine (Sexual Health) and Master of Public Health. Public Health Aspects of HIV/AIDS: STD surveillance systems.
October:	Perth. Curtin University. HIV/AIDS Prevention and Control Course: Epidemiology and surveillance of HIV/AIDS.
November:	New South Wales College of Nursing. Postgraduate certificate in oncological nursing course. Epidemiology of HIV/AIDS.

A/Prof Bruce Brew

Academic year:	UNSW Medicine 3rd and 4th year: clinical tutorials.
2nd semester:	University of Sydney Master of Medicine. Neurological aspects of AIDS.
	UNSW Medicine 6th year. Confusional states and dementia.
	University of Western Sydney Masters in HIV Studies. Neurological complications of HIV infection.
	Sydney. FRACP Part 1 candidates: clinical tutorials.

	UNSW Medicine 6th year: integrated session - headache. Sydney Hospital. Post-registration nursing course in HIV infection and disease. Sacred Heart Hospice, Sydney. AIDS dementia complex workshop for health care workers.

Dr Don Smith

Academic year:	NSW RACGP. Special skills training post: weekly tutorials.
September:	UNSW Master of Public Health. AIDS course: Issues in clinical trials.
October:	Academic Unit of Sexual Health Medicine Master of Medicine (Sexual Health). HIV treatment in various environments.

Dr Gregory Dore

Academic year:	UNSW Medicine 3rd year. Weekly clinical tutorials.
March:	Academic Unit of Sexual Health Medicine Master of Medicine (Sexual Health). Clinical HIV epidemiology.
June:	UNSW Medicine 4th year. Epidemiological applications of research into hepatitis C infection.
July:	University of Sydney Master of Public Health. Global HIV epidemiology.
2nd semester:	UNSW Faculty of Community Medicine (Master of Public Health and Master of Community Health). Weekly tutorials.
August:	Sydney Hospital post-registration nursing course. Natural history of HIV infection. UNSW Master of Public Health. AIDS course: Global and local HIV/AIDS epidemiology.
September:	UNSW Master of Public Health. AIDS course: Clinical spectrum of HIV disease. Academic Unit of Sexual Health Medicine Master of Medicine (Sexual Health). HIV and opportunistic infection prophylaxis.

Dr Andrew Grulich

Academic year:	UNSW Master of Public Health. Epidemiology.
January:	UNSW 4th year Medicine. Epidemiology.
May:	UNSW Indonesia-Australia Specialised Training Project in HIV/AIDS Management and Development.
2nd semester:	UNSW Master of Public Health. Case studies in epidemiology.
August:	UNSW Postgraduate diploma in Pharmaceutical Sciences. Clinical epidemiology, trial design and statistics.
September:	University of Newcastle (Canberra) Corporate Master of Public Health. Critical appraisal.

Matthew Law

2nd semester:	UNSW Postgraduate studies in Pharmaceutical Sciences (distance learning).

HIGHER DEGREE AWARDS AND ENROLMENTS 1997

Higher degree studies undertaken by staff members and postgraduate students supervised for research projects are:

Doctor of Philosophy awarded 1997

Andrew Grulich (UNSW)
HIV-related cancer: incidence, risk factors and prognosis.

Tony Kelleher (St Vincent's Hospital Clinical School, UNSW)
The effects of therapeutic intervention on the HIV infected immune system.

Steve Kerr (Centre for Immunology) (UNSW)
The importance of the excitotoxin quinolinic acid in the pathogenesis of the AIDS dementia complex.

Natalie Zheng (Centre for Immunology) (UNSW)
Genotypic and phenotypic analysis of HIV isolated from patients enrolled in the Alpha dideoxyinosine (ddI) trial and 935U83 trial.

Master of Public Health awarded 1997

Patricia Correll (UNSW)
HIV disease progression in the era of combination antiretroviral therapies: A comparison of the rates of progression to AIDS and survival in people with advanced HIV infection in Sydney between 1990 and 1996.

Master of Information Science awarded 1997

Bijan Sarkar (UNSW)
A user-friendly database for School of Computer Science and Engineering, The University of New South Wales.

Doctor of Philosophy candidates

Lesley Ashton (UNSW)
Medically acquired HIV infection in Australia.

Rima Habib (UNSW)
Exposure to radiation at Lucas Heights and the risk of cancer.

Gillian Hales (Macquarie University)
Randomised trials in a community-based setting with HIV positive people.

Angel (Bill) Jaramillo (St Vincent's Hospital Clinical School, UNSW)
Characterisation of T-cell repertoire abnormalities in HIV infected individuals.

Matthew Law (St Vincent's Hospital Clinical School, UNSW)
Epidemiology of HIV incidence and prevalence.

Kehui Luo (Macquarie University)
Modelling survival following AIDS.

Margaret MacDonald (UNSW)
Methodological issues in monitoring blood-borne viruses and related risk behaviour in Australian injecting drug users, 1993-1996.

Nicole Newcombe (Centre for Immunology) (UNSW)
The role of cytotoxic T lymphocytes in HIV transmission.

Louise Pemberton (Centre for Immunology) (UNSW)
Molecular basis for the pathogenesis of AIDS dementia.

Garrett Prestage (UNSW)
The impact of HIV/AIDS on the relationship between sexual identity and sexual behaviour in male homosexual subcultures.

John Wilkinson (Centre for Immunology) (UNSW)
Characterisation of the cell mediated anti-HIV response in patients receiving the protease inhibitor ABT-538.

Master of Medicine

Oliver Distler (Centre for Immunology) (UNSW)
Characterisation of T cell receptor V b repertoire variation in HIV-1 positive individuals at primary infection and negative partners of HIV-1 discordant couples.

Master of Public Health candidate

Janice Pritchard-Jones (University of Sydney)
The epidemiology and the risk factors for hepatitis C associated cirrhosis in a cohort of 624 anti-HCV antibody positive patients.

Master of Health Science (HIV studies) candidate

Jeff Hudson (The University of Western Sydney Nepean).

Other supervised higher degrees:

Doctor of Philosophy candidate

Paul Kelly (University of Sydney)
Tuberculosis and HIV infection in a rural African population.

Tatiana Haraloubas (UNSW)
Kynurenine pathway activation and its effects on behaviour in rats.

Irit Ben-Nissan (UNSW)
Psychosocial aspects of patients with AIDS dementia.

Master of Medicine candidate

Rosalind Foy (University of Sydney)
Factors associated with condom use and sexually transmissible diseases/human immunodeficiency virus infection in female sex workers in Hong Kong.

FUNDING 1997

The Commonwealth Department of Health and Family Services provided funds of $3,326,704 in 1997 to the National Centre, for administration of the Centre, the Clinical Trials and Treatments Advisory Committee (CTTAC) and the Community HIV Research Network (CHRN).

For administrative purposes, these funds are allocated into the following categories:

Core Activities	**$2,417,419**
Laboratory Support	**$300,000**
Clinical Trial and Treatments Advisory Committee	**$206,557**
Community HIV Research Network	**$402,728**

Other Commonwealth Funds:

CARG Postgraduate Scholarship Awarded to: Angel B Jaramillo; Supervisor: Professor David A Cooper	**$10,751**
NH&MRC Grant Metabolic Pathogenesis of AIDS Dementia Complex	**$54,925**
NH&MRC Grant The Molecular Basis of HIV-l Macrophage Tropism as a Marker of AIDS Dementia	**$54,401**

Other Grants and Contracts:

The University of New South Wales DEET RIBG Funds	**$330,000**
Clinical Research Project Funds (UNSW)	**$68,414**
Research into the Epidemiology of Hepatitis C in Australia	**$43,628**
HIV/AIDS Education for Health Workers In Thailand	**$34,107**
IASTP Management and Development Course	**$40,000**
Donations to HIV Research (NCHECR and CHRN)	**$3,630**

Pharmaceutical Industry Funding:

Funds were received from the following companies during 1997:

Abbott Australia	**$250,374**
Agouron Pharmaceuticals Inc	**$11,016**
Boehringer Ingelheim P/L	**$9,820**
Bristol-Myers Squibb Pharmaceuticals	**$80,000**
British Bio-Technology Limited	**$130,756**
Gilead Sciences	**$126,367**
GlaxoWellcome Australia Ltd	**$62,799**
Janssen-Cilag Pharmaceuticals	**$15,936**
Merck Sharp & Dohme	**$32,757**
Pharmacia and Upjohn	**$10,000**
Roche Products P/L	**$74,566**

PRESENTATIONS 1997

Professor David Cooper

January:	Washington, USA. 4th Conference on Retroviruses and Opportunistic Infections. Presentation: The CAESAR Trial: Final results.
February:	Sydney. 7th International Antiviral Symposium. Presentation: Restoration of the immune response with antiretroviral therapy of HIV disease.
	Canberra. 3rd Virology in Perspective Conference - Virology: A New Perspective. Co-chair: New Antiretrovirals. Workshop: Concepts of antiretroviral sequencing.
March:	Khanchanaburi, Thailand. HIVNAT Course. Workshop synopsis on management of multicentre clinical trials. Presentation: Liaison with the pharmaceutical industry. Presentation: Leadership and management skills - keys for a successful clinical trials centre.
	Bangkok, Thailand. Antiretroviral Update 1997. Presentation: Protease inhibitors.
	Tokyo, Japan. Anti HIV Treatment Symposium 1997. Presentation: Advances in antiretroviral therapy.
	Hong Kong. Presentation: Advances in antiretroviral therapy.
June:	Melbourne. 3rd AIDS Impact International Conference: Biopsychosocial Aspects of HIV Infection. Closing ceremony address.
	Prague, Czech Republic. New Treatment Strategies for HIV Patients.
June - July:	Sydney. 20th International Congress of Chemotherapy. Symposium chair: Antiretrovirals - where are we now? Presentation: Which combinations?
August:	Sydney. Nevirapine: An Evening Symposium. Symposium Chair.
September:	Istanbul, Turkey. 3rd International Consensus Symposium: Novel Developments in Antiretroviral Therapy. Presentation: Antiretroviral therapies.
Sept - Oct:	Toronto, Canada. 37th Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC). Presentation: Effect of lamivudine on hepatitis B/HIV co-infected patients from the CAESAR study.

October: Manila, Philippines. 4th International Congress on AIDS in Asia and the Pacific: Partnerships Across Borders Against HIV/AIDS. Presentation: improvement in immunity on regimens involving d4T/3TC/indinavir. Clinical management – State of the Art. Co-chair: Restoration of the immune response with antiretroviral therapy.

Sydney. Recent Advances in Antiretroviral Therapy.

November: Adelaide. 9th Annual National Conference, Australasian Society in HIV Medicine (ASHM).

Annapolis, USA. 2nd NIH HIV Primary Infection Workshop.

Tokyo, Japan. 6th International Symposium: AIDS as an International Infectious Disease. Presentation: Favourable results of new anti-HIV combination therapies.

December: Kuala Lumpur, Malaysia. Antiretroviral Treatment Symposium.

Kona, Big Island, Hawaii. 2nd International Conference on Therapies for Viral Hepatitis. Presentation: Effect of lamivudine on hepatitis B/HIV co-infected patients from the CAESAR study.

Professor John Kaldor

February: Sydney. University of Sydney Department of Psychology/Department of Psychological Medicine Forum of Eating or Dieting Disorder Research. Presentation: Methodology for assessing long-term outcomes.

March: Sydney. First Australian Conference on Hepatitis C. Presentation: The occurrence of hepatitis C in Australia.

May: Melbourne. 11th National Conference of the Australian Infection Control Association. Presentation: National monitoring of occupational exposure.

June: Sydney. 20th International Congress of Chemotherapy. Presentation: Epidemiology in Western Pacific and Asia.

Sydney. School of Community Medicine Research Seminar. Presentation: Hepatitis C in Australia - transmission, progression and prevention.

September: Manila, Philippines. World Health Organisation Regional Office for the Western Pacific Workshop on HIV, AIDS and STD Epidemiology in

the Western Pacific Region. Presentation: Overview of the methods for estimation and projection of HIV/AIDS cases.

Adelaide. Australian Society for Microbiology Scientific Meeting and Exhibition. Presentation: Methodological issues in hospital based surveillance systems. Presentation: Surveillance for blood-borne viruses.

October: Canberra. Australian Institute of Health and Welfare National Biomedical Risk Factor Survey Workshop. Presentation: General issues in blood surveys. Session chair: Priorities for blood analyses in the areas of nutrition, cancer, genetics and other biomarkers and communicable diseases.

Melbourne. Australasian Epidemiological Association Annual Scientific Meeting. Presentation: Epidemiology of infectious diseases.

Manila, Philippines. Monitoring the AIDS Pandemic Symposium. Presentation: HIV epidemiology in Australia.

Manila, Philippines. 4th International Congress on AIDS in Asia and the Pacific. Presentation: Current status of HIV/AIDS in Australia.

November: Sydney. HIV Continuing Medical Education Project, HIV (s100) Prescribers Update. Presentation: HIV infection in the Asia-Pacific Region.

Adelaide. Australasian Society for HIV Medicine Annual Conference. Debate moderator: HIV eradication in the individual - is it achievable? Session chair: Regional perspective of HIV infection. Presentation: HIV infection in the Asia-Pacific Region.

Hobart. Menzies Centre for Population Health Research seminar. Presentation: Recent developments in monitoring the occurrence of blood borne viruses in Australia.

Hobart. COSA 24th Annual Scientific Meeting. Presentation: Recent epidemiological trends in the incidence of non-Hodgkin's lymphoma in Australia.

December: Sydney. Australian Federation of AIDS Organisations Indonesian Study Tour. Presentation: Methods of HIV/STD Surveillance.

A/Prof Bruce Brew

March: Cannes, France. AIDS dementia complex and its prevention. Presentation: Zerit in the management of HIV disease.

Dr Don Smith

March:	Singapore. HIV Update Workshop. Presentation: HIV viral dynamics.
	Singapore. HIV Update Workshop. Presentation: Update on antiretroviral regimens.
May:	Melaka, Malaysia. Malaysian Medical Association Annual Conference. Presentation: Pathophysiology of HIV/AIDS.
	Sydney. Short Course in HIV Medicine. Presentation: Clinical Trials.
August:	Sydney. GP HIV Study Group. Presentation: HIV drug resistance.
Aug/Sept:	Subang, Ipoh, Penang, Kuala Terengganu, Johor Baru and Kuching, Malaysia. Malaysian Medical Association. Presentation: HIV Therapy - the Malaysian perspective.

Dr Sean Emery

March:	Khanchanaburi, Thailand. HIVNAT Course. Workshop on the Management of Multicentre Clinical Trials. Presentation: How is an international research centre organised? Presentation: IL2 in HIV disease – a pooled analysis.
May:	Reston, Virginia, USA. NIAID investigators meeting. Presentation: ESPRIT study design.
June:	Rome, Italy. ESPRIT European investigators meeting. Presentation: European contribution.
July:	Chicago, USA. NIH investigators meeting. Presentation: ESPRIT study design.
September:	Toronto, Canada. Satellite Meta-analysis of IL2 in HIV disease.
November:	Sydney. GP Study Group. Presentation: Immunotherapy of HIV disease - IL2.
December:	Frankfurt, Germany. German Investigators Meeting. Presentation: IL2 meta-analysis.
	Amsterdam, Netherlands. European Investigators Meeting. Presentation: Data management for ESPRIT.

Dr Greg Dore

March: Sydney. HIV GP Study Group. Presentation: Interferon for chronic hepatitis C infection.

Sydney. First Australasian Conference on hepatitis C. Presentation: HIV and hepatitis C prevalence among hilltribe drug users in Northern Thailand Presentation: The role of polymerase chain reaction in defining level of infectivity among people with hepatitis C. Presentation: Targeting of interferon therapy for people with chronic hepatitis C.

April: Sydney. AFAO Seminar. Presentation: HIV research update.

May: Sydney. Short Course in HIV Medicine. Presentation: The HIV Epidemic: where are we now?

June: Sydney. Short Course in STD Medicine. Presentation: Hepatitis A, B and C.

August: Sydney. Australia-China Health Promotion Project. Presentation: HIV/AIDS epidemiology and surveillance.

September: Sydney. World Health Organisation Chinese Fellows. Presentation: HIV surveillance among injecting drug users.

October: Hamburg, Germany. CAESAR study investigator meeting. Presentation: Effect of lamivudine on HIV/hepatitis B co-infected patients in the CAESAR study.

Manila, Philippines. 4th International Congress on AIDS in Asia and the Pacific. Presentation: Clinical management of HIV-related bacterial and fungal infections. Presentation: Modelling the HIV epidemic in low prevalence countries.

November: Sydney. Corrections Health Service Conference. Presentation: Harm reduction strategies in contrasting settings.

Adelaide. Australasian Society for HIV Medicine Annual Conference. Presentation: AIDS Dementia Complex - prognostic factors for survival. Chair: Epidemiology concurrent session.

Dr Andrew Grulich

April: Sydney. Australian Federation of AIDS organisations. Panellist: Recent trends in HIV risk behaviour in homosexual men.

June: Sydney. Telephone Counsellors Training Course, Albion Street AIDS Clinic. Presentation: Recent trends in HIV incidence and HIV risk behaviour.

July: Sydney. St Vincent's Hospital HIV Study Group. Presentation: Sexual transmission of KSHV and report on the first National AIDS Malignancy Conference.

October: Sydney. Sydney GP HIV study group. Presentation: Non-occupational post exposure prophylaxis against HIV infection.

Sydney. Australian Federation of AIDS Organisations. Panellist: Non-occupational post-exposure prophylaxis against HIV infection.

Sydney. HIV/AIDS clinical trials nurse update. Presentation: Global and local HIV/AIDS epidemiology.

Sydney. NSW Ministerial Advisory Committee on AIDS Strategy. Presentation: HIV Epidemiology update.

November: Sydney. Visiting delegation of Chinese public health officials. Presentation: Australia's response to the HIV/AIDS epidemic.

Sydney. HIV Continuing Medical Education Project. Presentation: Post-exposure prophylaxis.

Adelaide. Australasian Society for HIV Medicine Annual Conference. Presentation: Risk factors for HIV infection in homosexual men: what more do we need to know?

December: Johannesburg, South Africa. South African Institute of Medical Research. Presentation: Route of transmission of human herpes virus 8.

Matthew Law

June: Sydney. Macquarie University, Department of Statistics seminar. Statistical problems with HIV/AIDS surveillance data.

CONFERENCES: ORAL PRESENTATIONS

March: **Sydney. First Australasian Conference on hepatitis C.**

Hepatitis C antibody among IDU at Australian needle exchanges. **MacDonald M**, Wodak A, **Kaldor J** on behalf of the Collaboration of Australian Needle Exchanges.

April: **Maryland, USA. First National AIDS Malignancy conference.**

Route of transmission of Kaposi's sarcoma-associated herpes virus. **Grulich A**, Olsen S, **Hendry O**, Luo K, **Cooper D**, Wheng W, Gao SJ, Moore P, **Kaldor J**.

Rates of non-AIDS defining cancers in people with AIDS. **Grulich A**, Wan X, **Law M**, Coates M, **Kaldor J**.

Boston, USA. 49th American Academy of Neurology conference.

Kynurenine pathway inhibition with 6-chloro-D-tryptophan reduces the neurotoxicity of HIV-1 infected macrophage supernatants. **Kerr SJ**, Armati PJ, **Pemberton LA**, Smythe G, **Brew BJ**.

April/May: **Sydney. Australian Association of Neurologists and Association of British Neurologists, Annual Scientific Meeting.**

The importance of the neurotoxin quinolinic acid. **Kerr SJ**, Armati PJ, **Pemberton LA**, Smythe G, **Brew BJ**.

Successful outcome with aggressive treatment of acute haemorrhagic leukoencephalitis. Markus R, Turner J, Pell M, **Brew BJ**.

May: **Melbourne. Australian Infection Control Conference**

Occupational exposure to blood and body fluids among Australian health care workers, 1996. **MacDonald M** on behalf of the state and territory coordinators and participating sites.

Philadelphia, USA. 1st International Symposium of Neurovirology.

Neurotoxicity resulting from chronic exposure of human brain to quinolinic acid. **Kerr SJ**, Armati PJ, **Brew BJ**.

June: **Melbourne. AIDS Impact - Biopsychosocial aspects of HIV infection. 3rd International Conference.**

Risk factors for HIV seroconversion in homosexually active men: a comparison of cohort and case-control studies. **Grulich AE**, **Kaldor J**, **Hendry O**, **Law M**, **Prestage G**, Kippax S.

Assessment of patient reported HIV exposure history in Australia, 1994 - 1996. **McDonald A** and **Kaldor J** for the National HIV Surveillance Committee.

Gay Identities and Gay Subcultures. **Prestage G**.

Contexts for Sexual and Social Engagement in the SMASH, MMASH and BRASH Cohort Studies. **Prestage G**.

Florida, USA. International workshop on HIV drug resistance, treatment strategies and eradication.

Reversal of lymphocyte RA/RO ratios in patients with primary HIV infection treated with zidovudine, lamivudine and indinavir. **Smith D**, Bloch M, **Grey P**, Cunningham P, Zaunders J, Kelleher A, **Cooper DA**.

Sydney. World Congress on Dermatology.

Advances in KS aetiopathogenesis (invited presentation). **Grulich A**.

Melbourne. IUVDT HIV/STD 5th World Congress and the 37th IUVDT General Assembly.

Incidence and prevalence of HIV infection in people seen at STD clinics in Australia, 1993 - 1995. **McDonald A** for the Collaborative Group on Sentinel HIV Surveillance in STD clinics.

August: **Christchurch, New Zealand. Australasian Paediatric Conference.**

Perinatal exposure to HIV in Australia, 1982 - 1996. **McDonald A**, Cruickshank M, Elliott E, Ziegler J, **Kaldor J** and the National HIV Surveillance Committee.

September: **Adelaide. 14th NRL Workshop on Serology.**

Perinatal exposure to HIV in Australia, 1982 - 1996. **McDonald A**, Cruickshank M, Elliott E, Ziegler J, **Kaldor J** and the National HIV Surveillance Committee.

Sydney. St Vincent's Hospital Research Symposium.

Route of transmission of Kaposi's sarcoma-associated herpesvirus. **Grulich A**, Olsen S, **Hendry O**, Luo K, **Cooper D**, Wheng W, Gao SJ, Moore P, **Kaldor J**.

October: **Melbourne. Annual Scientific Meeting of the Australasian Epidemiological Association.**

Perinatal exposure to HIV in Australia, 1982 - 1996. **McDonald A**, Cruickshank M, Elliott E, Ziegler J, **Kaldor J** and the National HIV Surveillance Committee.

The changing pattern of reporting delays for AIDS diagnoses in Australia. **Cui J**.

November: **Adelaide. Australasian Society for HIV Medicine, 9th Annual Conference.**

Predictors of progression in long-term nonprogressors. **Ashton LJ**, Carr A, Cunningham PH, Roggensack M, McLean K, **Law M**, Robertson M, **Cooper DA**, **Kaldor J**, for the Australian Long-term Nonprogressor Study Group.

CCR5 genotype, AIDS defining illness, and survival after AIDS in a cohort of homosexual men. **Ashton LJ**, Liti R, **Law M**, **Vizzard J**, **Newcombe N**, Ffrench R, **Stewart G**, **Cooper DA**, **Kaldor JM**, on behalf of the Sydney AIDS Study Group.

CD8 activation does not totally normalise in treated primary HIV infection despite undetectable viral load; evidence of ongoing viral replication? Bloch M, Kelleher, **Smith D**.

HIV & Tuberculosis (TB) co-infection in Australia 1995-1997. **Clezy K**, Hoy J, Jones P, Allworth A, French M, Quin J, Pigott P, Shaw D for the Opportunistic Infections Working Group.

AIDSfree time and survival time from CD4+ cell count of 200x106/L in Sydney 1990-1992 and 1994-1996. **Correll P**, **Law M**, **McDonald A**, **Kaldor J**.

Outcome of HIV infection in women with exposed children, 1982 - 1996. Cruickshank M, **McDonald A**, Palasanthiran P, **Law M**, Goode M, Hughes C, Ziegler J and **Kaldor J**.

In vivo comparison of reverse transcriptase inhibitor resistance patterns in paired cerebrospinal fluid and blood of HIV-1 infected patients with a novel LiPA. Cunningham P, **Smith D**, Satchell C, **Brew BJ**.

Characteristics and prognostic factors for AIDS dementia complex. **Dore GJ**, van der Bij A, **Kaldor J**, **Brew BJ**.

Risk factors for AIDS-associated NHL: a case-control study. **Grulich A**, Wan X, Bullard S, Finlayson R, Garsia R, Gold J, Lewis C, Milliken S, **Cooper D**, **Kaldor J**. Winner of award for best oral presentation in epidemiology.

Chronic exposure of human neurons to quinolinic acid results in neuronal changes consistent with AIDS dementia complex. **Kerr S**, Armati P, **Brew BJ**.

Estimating the effects of treatments on AIDS incidence. **Law MG**, **Cui J**, **Kaldor JM**.

HIV disease progression following newly acquired HIV infection in Australia, 1991 - 1996. **McDonald A**, **Cui J**, **Kaldor J** and the National HIV Surveillance Committee.

HIV prevalence at reception into Australian prisons, 1991 - 1996. **McDonald A**, Ryan J, Brown P, Wake C, Falconer A, Saint S, Harvey W, Hearne P, Gibson J, **Kaldor J**

Prophylaxis and seroconversion after occupational exposure to blood-borne viruses in Australian health care workers. **MacDonald M**, Watt P, **Kaldor J** on behalf of the state coordinators and participating sites.

HIV and HCV incidence among IDU attending selected Australian needle exchanges. **MacDonald M**, Wodak A, **Kaldor J** on behalf of the Collaboration of Australian Needle Exchanges.

Decreased frequency of CCR5Δ32 Heterozygotes in individuals recently infected with HIV-1. **Newcome N**, **Vizzard J**, Ffrench R, Bennets B, **Ashton L**, Stewart G, **Cooper D** and the Sydney HIV Study Group.

Variations in quinolinic acid concentrations from HIV-1 infected macrophages from five different macrophage donors. **Pemberton L**, **Kerr S**, **Brew BJ**.

November: **Sydney. Health Care of Australia (NSW)/NSW Infection Control Resource Centre Infection Control Workshop**

Occupational exposure to blood and body fluids among health care workers in Australia. **MacDonald M** on behalf of the state coordinators and participating sites.

November: **Hobart. Clinical Oncology Society of Australia.**

Risk factors for AIDS-associated NHL: a case-control study. Winner of award for best presentation. **Grulich A**, Wan X, Bullard S, Finlayson R, Garsia R, Gold J, Lewis C, Milliken S, **Cooper D**, **Kaldor J**.

CONFERENCES: POSTER PRESENTATIONS

January: **Washington, USA. 4th Conference on Retrovirology and Opportunistic Infections.**

Effect of therapeutic vaccine p24-VLP and AZT on immunological and virological markers in asymptomatic subjects. Kelleher AD, Walker A, **Jaramillo A**, Roggensack M, **Smith D**, Gow I, **Cooper DA**.

March: **Queenstown, New Zealand. Australasian Society of Infectious Diseases (ASID) Conference**

Trends in infectious disease mortality in Australia, 1979-94. **Dore G**.

October: **Hamburg, Germany. 6th European Conference on Clinical Aspects and Treatment of HIV Infection.**

CD8 activation does not totally normalise in treated primary HIV infection despite undetectable viral load, evidence for ongoing viral replication? Bloch M, Kelleher AD, **Smith D**, **Grey P**, Zaunders J, **Cooper DA**.

October: **Manila, Philippines. 4th International Congress on AIDS in Asia and the Pacific**

HIV and hepatitis C transmission among hilltribe drug users in Chiang Rai province, Thailand. **Dore G**.

Recent Changes In Treatment Uptake Among HIV Positive Men In A Cohort Of Homosexually-Active Men. **Prestage G**.

Risk Behaviours Among Men Of Asian Background In Three Cohorts Of Homosexually-Active Men. **Prestage G**.

November: **Adelaide. Australasian Society of HIV Medicine Conference**

Can we detect the current trend in HIV incidence by just using information on AIDS diagnoses? **Cui J**.

Trends in infectious diseases mortality in Australia, 1979-94. **Dore G**, **Li Y**, **Kaldor J**.

KSHV: sexual transmission and prediction of development of KS. **Grulich A**, Olsen S, **Hendry O**, Luo K, **Cooper D**, Wheng W, Gao SJ, Moore P, **Kaldor JM**. Winner of award for best poster presentation in epidemiology.

Chronic exposure of human neurons to quinolinic acid results in neuronal changes consistent with AIDS dementia complex neuropathology. **Kerr S**, Armati P, **Brew BJ**.

Estimates of the number of people living with HIV in Australia by HIV disease stage, 1997 to 2002. **Law MG**, **Cui J**, **Kaldor JM**.

Variations in quinolinic acid concentrations from HIV-1 infected macrophages from five different macrophage donors. **Pemberton L**, **Kerr S**, **Brew BJ**.

Unprotected Intercourse Among HIV Positive Men: The Influence Of Combination Therapies. **Prestage G**, **Grulich A**, Campbell D, **Kaldor J**, Kippax S.

Long-Term Injecting Drug Use Among Gay Men. **Prestage G**, Kippax S.

PUBLICATIONS 1997

Peer-reviewed publications

Adcock JE, Davies MA, Turner J, Pell M, **Brew BJ**. Progressive multifocal leukoencephalopathy: a retrospective study of 30 cases. *J Clin Neuroscience* 1997;4:463-468.

Brew BJ. AIDS dementia complex and its prevention. *Antiviral Therapy* 1997;2(suppl 3):69-73.

Brew BJ, **Pemberton L**, Cunningham P, **Law MG**. Levels of human immunodeficiency virus type 1 RNA in cerebrospinal fluid correlate with AIDS dementia stage. *J Infect Dis* 1997;175:963-966.

Brun-Vezinet F, Boucher C, Loveday C, Deschamps D, Fauveau V, Izopet J, Jeffries D, Kaye S, Krzyanowski C, Nunn A, Schuurman R, Seigneurin J-M, Tamalet C, Tedder R, Weber J, Weverling G-J, the National Virology Groups, and the Delta Virology Working Group and Coordinating Committee (**Cooper D** member). HIV-1 viral load, phenotype, and resistance in a subset of drug-naive participants from the Delta trial. *Lancet* 1997;350:983-990.

Carr A, Brown D, **Cooper DA**. Portal vein thrombosis in patients receiving *indinavir*, an HIV protease inhibitor. *AIDS* 1997;11;1657-1658 (letter).

Carr A, **Cooper DA**. CD8 T-cell response to antiretroviral therapy. (Authors' reply) *J Acquir Immune Defic Syndr Hum Retrovirol* 1997;15:176-177 (letter).

Carr A, **Cooper DA**. Cytomegalovirus retinitis after initiation of highly active antiretroviral therapy. *Lancet* 1997;350:589 (letter).

Carr A, **Cooper DA**. Restoration of immunity to chronic hepatitis B infection in HIV-infected patient on protease inhibitor. *Lancet* 1997;349:995-996 (letter).

CAESAR Coordinating Committee (**Clezy K**, **Smith D**, investigators; **Cooper DA** principal investigator and corresponding author). Randomised trial of addition of lamivudine or lamivudine plus loviride to zidovudine-containing regimens for patients with HIV-1 infection: the CAESAR trial. *Lancet* 1997;349:1413-1421.

Crofts N, Jolley D, **Kaldor JM**, van Beek I, Wodak A. The epidemiology of hepatitis C virus infection among injecting drug users in Australia. *J Epidemiol Community Health* 1997;6:692-697.

Cunningham AL, Naif H, Saksena N, Lynch G, Chang J, Li S, Jozwiak R, Alali M, Wang B, Fear W, Sloane A, **Pemberton L**, **Brew B**. HIV infection of macrophages and the pathogenesis of AIDS dementia complex: interaction of the host cell and viral genotype. *J Leukoc Biol* 1997;62:117-125.

de Jong MD, Boucher CAB, **Cooper DA**, Galasso GJ, Gazzard B, Lange JMA, Montaner JS, Richman DD, Thomas HC. Summary of the II international consensus symposium on combined antiviral therapy and implications for future therapies. *Antiviral Res* 1997;35:65-82.

de Jong MD, Vella S, Carr A, Boucher CA, **Imrie A**, French M, Hoy J, Sorice S, Pauluzzi S, Chiodo F, Weverling GJ, van der Ende ME, Frissen PJ, Weigel HM, Kauffmann RH, Lange JM, Yoon R, Moroni M, Hoenderos E, Leitz G, **Cooper DA**, Hall D, Reiss P. High-dose nevirapine in previously untreated human immunodeficiency virus type 1-infected persons does not result in sustained suppression of viral replication. *J Infect Dis* 1997;175:966-970.

Dick AD, Pell M, **Brew BJ**, Foulcher E, Sedgwick JD. Direct *ex vivo* flow cytometric analysis of human microglial cell CD4 expression: examination of central nervous system biopsy specimens from HIV-seropositive patients and patients with other neurological disease. *AIDS* 1997;11:1699-1708.

Dore GJ, Hoy JF, Mallal SA, Li Y, Mijch AM, French MA, **Cooper DA**, **Kaldor JM**. Trends in incidence of AIDS illnesses in Australia from 1983 to 1994: The Australian AIDS Cohort. *J Acquir Immune Defic Syndr Hum Retrovirol* 1997;16:39-43.

Dore GJ, **Kaldor JM**, McCaughan GW. Systematic review of role of polymerase chain reaction in defining infectiousness among people with hepatitis C virus. *BMJ* 1997;315:333-337.

Dore GJ, **Law MG**, **Kaldor JM**. Regarding "Gordin FM, Matts JP, Miller C et al. A controlled trial of isoniazid in persons with anergy and human immunodeficiency virus infection who are at high risk for tuberculosis. N Engl J Med 1997;337:315-320". *N Engl J Med* 1997;337:1697 (letter).

Emery S, Lane HC. Immune reconstitution in HIV infection. *Curr Opin Immunol* 1997;9:568-572.

Gray JA, **Dore GJ**, **Li Y**, Supawitkul S, Effler P, **Kaldor JM**. HIV-1 infection among female commercial sex workers in rural Thailand. *AIDS* 1997;11:89-94.

Grulich AE, **Kaldor JM**. Intralesional human chorionic gonadotropin for Kaposi's sarcoma. *N Eng J Med* 1997;336:1187-1188 (letter).

Grulich AE, **Kaldor J**, **Hendry O**, Luo K, Bodsworth NJ, **Cooper DA**. Risk of Kaposi's sarcoma and oroanal sexual contact. *Am J Epidemiol* 1997;145:673-679.

Hurley SF, Jolley DJ, **Kaldor JM**. Effectiveness of needle-exchange programmes for prevention of HIV infection. *Lancet* 1997;349:1797-1800.

Imrie AA, Beveridge A, Genn W, **Vizzard J**, **Cooper DA** and the Sydney Primary Infection Study Group. Transmission of human immunodeficiency virus type-1 resistant to nevirapine and zidovudine. *J Infect Dis* 1997;175:1502-1506.

Kaldor JM. HTLV-1 and blood safety: let the community decide. *Med J Aust* 1997;166:454-455.

Kelleher AD, **Emery S**, Cunningham P, Duncombe C, Carr A, Golding H, **Forde S**, **Hudson** J, Roggensack M, Forrest BD, **Cooper DA**. Safety and immunogenicity of UBI HIV-1MN octameric V3 peptide vaccine administered by subcutaneous injection. *AIDS Res Hum Retroviruses* 1997;13:29-32.

Kerr SJ, Armati PJ, **Pemberton LA**, Smythe G, Tattam B, **Brew BJ**. Kynurenine pathway inhibition reduces neurotoxicity of HIV-1-infected macrophages. *Neurology* 1997;49:1671-1681.

Kippax SC, Noble J, **Kaldor J**, **Hendry O**, **Prestage G**, Campbell D, Crawford JM. Risk faxtors for HIV: a case-control comparison of homosexually active men in Sydney. *AIDS*, 1997;

Kippax SC, Noble J, **Prestage G**, Crawford JM, Campbell D, Baxter D, **Cooper DA**. Sexual negotiation in the AIDS area: negotiated safety revisited. *AIDS* 1997;11:191-197.

Law MG, **Kaldor JM**. A note on the grouping of surveillance data when adjusting for reporting delays. *Am J Epidemiol* 1997;146:592-595.

Law MG, **Kaldor JM**. Regarding "Law MG, Kaldor JM. Survival analysis of randomized clinical trials adjusted for patients who switch treatments. Stat Med 1996;15:2069-2076". *Stat Med* 1997;16:2620-2621 (letter).

Law MG, **Kaldor JM**. Regarding "Sinicco A, Flora R, Raireri R et al. Is the clinical course of HIV-1 changing? Cohort study. BMJ 1997;314:1232-1237". *BMJ* 1997; 315:1236-1237 (letter).

Leenders ACAP, Reiss P, Portegies P, **Clezy K**, Hop WCJ, Hoy J, Borleffs JCC, Allworth T, Kauffmann RH, Jones P, Kroon FP, Verbrugh HA, de Marie S. Liposomal amphotericin B (AmBisome) compared with amphotericin B both followed by oral fluconazole in the treatment of AIDS-associated cryptococcal meningitis. *AIDS* 1997;11:1463-1471.

MacDonald M, Wodak AD, Ali R, **Crofts N**, Cunningham PH, Dolan KA, Kelaher M, Loxley WM, van Beek I, **Kaldor JM**, on behalf of the Collaboration of Australian Needle Exchanges. HIV prevalence and risk behaviour in needle exchange attenders: a national study. *Med J Aust* 1997;166:237-240.

Markus R, **Brew BJ**, Turner J, Pell M. Successful outcome with aggressive treatment of acute haemorrhagic leukoencephalitis. *J Neurol Neurosurg Psychiatry* 1997;63:551 (letter).

Marriott DJE, Wong KH, Aznar E, Harkness JL, **Cooper DA**, Muir D. Scytalidium dimidiatum and Lecythophora hoffmannii: unusual causes of fungal infections in a patient with AIDS. *J Clin Microbiol* 1997;35:2949-2952.

McDonald AM, Cruikshank M, Ziegler JB, Elliott E, **Kaldor JM**. Perinatal exposure to HIV in Australia, 1982-1994. *Med J Aust* 1997;166:77-80.

McNulty AM, **Law MG**, Bodsworth NJ, **Cooper DA**, **Kaldor JM**. The incidence of HIV infection in a cohort of homosexually active men. Aust NZ *J Public Health* 1997;21:587-589.

McNulty AM, **Li Y**, Radtke U, **Kaldor JM**, Rohrsheim R, **Cooper DA**, Donovan B. Herpes zoster and the stage and prognosis of HIV-1 infection. *Genitourin Med* 1997;73:467-470.

McNulty AM, **Rowbottom JH**, **Kaldor JM** and the Collaborative Network of Sexual Health Clinics. Sentinel sexually transmitted diseases surveillance at sexual health clinics. *Venereology* 1997;10:10-13.

Moyle GJ, Bouza E, Antunes F, **Smith D**, Harris R, Warburg M, Walker M. Zidovudine monotherapy versus zidovudine plus zalcitabine combination therapy in HIV-positive persons with CD4 cell counts 300-500 cells/mm3: a double blind controlled trial. *Antiviral Therapy*, 1997; 2:229-236.

Padiglione A, Goldstein D, **Law MG**, Hoy JF, **Kaldor JM**, Mijch AM. Prognosis of Kaposi's sarcoma as an initial and later AIDS associated illness. *Ann Oncol* 1997;8:871-875.

Page-Shafer K, Veugelers PJ, Moss AR, Strathdee S, **Kaldor JM**, van Griensven GJP. Sexual risk behavior and risk factors for HIV-1 seroconversion in homosexual men participating in the Tricontinental Seroconverter Study, 1982-1994. *Am J Epidemiol* 1997;146:531-542.

Pemberton LA, **Kerr SJ**, Smythe G, **Brew BJ**. Quinolinic acid production by macrophages stimulate with interferon γ tumor necrosis factor α and interferon α. *J Interferon Cytokine Res* 1997;17:589-595.

Pemberton LA, **Kerr SJ**, **Brew BJ**. HIV-1 gp120 does not induce quinolinic acid production by macrophages. *J Neurovirol* 1997;3:86-87 (letter).

Stewart GJ, **Ashton LJ**, Biti RA, Ffrench RA, Bennetts BH, **Newcombe NR**, Benson EM, Carr A, **Cooper DA**, **Kaldor JM** and the Australian Long-Term Non-Progressor Study Group. Increased frequency of CCR5Δ32 heterozygotes among long-term non progressors with HIV-1 infection. *AIDS* 1997;11:1833-1838.

Thackway SV, Furner V, Mijch A, **Cooper DA**, Holland D, Martinez P, Shaw D, van Beek I, Wright E, **Clezy K**, **Kaldor JM**. Fertility and reproductive choice in women with HIV-1 infection. *AIDS* 1997;11:663-667.

van Bentham BH, Veugelers PJ, Schechter MT, **Kaldor JM**, Page-Shafer KA, van Griensven GJ. Modelling the AIDS incubation time: evaluation of three right censoring strategies. *AIDS* 1997;11:834-835 (letter).

Van de Ven P, Kippax S, Crawford J, French J, **Prestage G**, **Grulich A**, Kinder P, **Kaldor JM**. No relationship between age and HIV risk behaviour among Sydney gay men. *AIDS* 1997;11:691-693 (letter).

Van de Ven P, Campbell D, Kippax S, Crawford J, **Prestage G**, Baxter D, **Cooper D**. Factors associated with unprotected anal intercourse in gay men's casual partnerships in Sydney, Australia. *AIDS Care* 1997; 9:637-649

Van de Ven P, Noble J, Kippax S, **Prestage G**, Crawford J, Baxter D, **Cooper D**. Gay youth and their precautionary sexual behviour: the Sydney Men and Sexual Health Study. *AIDS Education and Prevention* 1997; 9:395-410

Van de Ven P, Kippax S, Crawford J, French J, **Prestage G**, **Grulich A**, **Kaldor J**, Kinder P. Sexual practices in a broad cross-sectional sample of Sydney gay men. *Aust NZ J Public Health* 1997;21:762-766.

Vanhems P, Allard R, **Cooper DA**, Perrin L, **Vizzard J**, Hirschel B, Kinloch-de Lo'es S, Carr A, Lambert J. Acute human immunodeficiency virus type 1 disease as a mononucleosis-like illness: is the diagnosis too restrictive? *Clin Infect Dis* 1997;24:965-970.

Veugelers PJ, **Kaldor JM**, Strathdee SA, Page-Shafer KA, Schechter MT, Coutinho RA, Keet IPM, van Griensven GJP. Incidence and prognostic significance of symptomatic primary human immunodeficiency virus type 1 infection in homosexual men. *J Infect Dis* 1997;176:112-117.

Veugelers PJ, Strathdee SA, **Kaldor JM**, Page-Shafer KA, Moss AR, Schechter MT, Schellekens PT, Coutinho RA, van Griensven GJP. Associations of age, immunosuppression and AIDS among homosexual men in the Tricontinental Seroconverter Study. *J Acquir Immune Defic Syndr Hum Retrovirol* 1997;14:435-441.

Book chapters

Brew BJ, **Tindall B**. Neurologic manifestations of primary HIV-1 infection. In: Berger JR, Levy RM, eds. *AIDS and the Nervous System*. Second edition. Philadelphia: Lippencott-Raven Publishers, 1997:517-526.

Carr A, **Brew BJ**, **Cooper DA**. Future therapy of HIV-related neurologic disease. In: Berger JR, Levy RM, eds. *AIDS and the Nervous System*. Second edition. Philadelphia: Lippencott-Raven Publishers, 1997:751-760.

Dore GJ, **Cooper DA**. Classification and spectrum of disease. In: Mandell GL, ed. *Atlas of Infectious Diseases*: *Volume 1 AIDS*. Second edition. Philadelphia: Current Medicine, Inc, 1997:4.2-4.11.

Prestage G. 'Not gay, not bisexual, but polymorphously sexually active', with S. Kippax, and J. Crawford. In Aggleto P, *Bisexualities and HIV/AIDS* London Taylor & Francis, 1997.

Publications: non-peer reviewed

Brew BJ, Portegies P. A practical guide to the pathogenesis and treatment of *HIV CNS disease*. London: International Medical Press, 1997.

Emery S, **Cooper DA**. Drug companies have a duty to continue treatment. *BMJ* 1997;314:889.

Grulich AE. Epidemiology of Kaposi's sarcoma: recent developments. *HIV & AIDS current trends* 1997;3(1):4-6.

HIV/AIDS and Related Diseases in Australia Annual Surveillance Report 1997. National Centre in HIV Epidemiology and Clinical Research, ed. Sydney: National Centre in HIV Epidemiology and Clinical Research, 1997.ISSN 1329-0096.

Kaldor JM. Hepatitis B incidence in Australia. *Vaccine News* 1997;8:1-2.

Kaldor JM. Public health epidemiology versus research epidemiology- does it have to be one or the other? *Australasian Epidemiologist* 1997;4(1):1-2.

MacDonald M, **Kaldor JM**. Hepatitis C: Epidemiology. *Australian Chinese Medical Association Journal* 1997;2:5.1.

National Centre in HIV Epidemiology and Clinical Research. *Australian HIV Surveillance Report*. 1997;13(1-4).

Grulich AE. Analytic studies. In: Kerr CB, Taylor R, Heard G eds. *Handbook of Public Health Methods*. Sydney:McGraw-Hill, 1998; in press.

Smith DE. Why treat primary HIV infection? *J HIV Combination Therapy*, 3:41-43.

Smith DE. Fourth conference on retroviruses and opportunistic infections - Washington DC. *J HIV Combination Therapy*, 2:38-40.

Smith D. Whittaker B, Crowe S, French M, Hoy J, **Clezy K**, Beveridge A. Antiretroviral therapy for HIV infection: principles of use, HIV/AIDS Clinical Trials and Treatments Advisory Committee, Australian National Council on AIDS and Related Diseases.

Smith D, **Phillips S**. The impact of antiretrovirals on HIV disease progression, viral load and CD4 count. Educational booklet for HIV specialists.

SMASH Publications

Women in contact with the gay and lesbian community: Sydney Women and Sexual Health survey 1996. Richters J, **Prestage G**, Lubowitz G, Bergen S, and Maurice R. (Sydney, 1997: National Centre in HIV Social Research).

Pills, Health, Capacity. The significance of HIV health practices, 1997. Race K, Cristaudo P, and Wilkins R, and **Prestage G**. (Sydney, 1997: National Centre in HIV Social Research).