



**National Centre in HIV  
Epidemiology and  
Clinical Research**

**Annual Report 2000**

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# *National Centre in HIV Epidemiology and Clinical Research*

## **Annual Report 2000**

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## *What is NCHECR?*

The National Centre in HIV Epidemiology and Clinical Research (NCHECR) was established in 1986 by the Australian Government to fulfil a number of key roles in Australia's fight against HIV/AIDS. The Centre's brief has grown over the years.

Located on the campus of St Vincent's Hospital in Sydney, the Centre is directly affiliated with the Faculty of Medicine at the University of New South Wales, and receives its core funding through the Commonwealth Department of Health and Aged Care. Its work is overseen by a Scientific Advisory Committee, which reports through the Australian National Council on AIDS, Hepatitis C and Related Diseases.

NCHECR's primary functions relate to the coordination of national surveillance programs and clinical trials related to HIV/AIDS. The Centre also carries out research on the epidemiological and clinical aspects of HIV/AIDS and other blood-borne viruses and sexually transmitted infections. Other functions of NCHECR include the training of health professionals, and input into the development and implementation of health policy and programs.

NCHECR carries out its functions by working with an extensive range of collaborators, including State and Territory Health Departments, public and private clinical units, national and international organisations, and the corporate sector. It also works closely with the two other national HIV research centres, the National Centre in HIV Virology Research and the National Centre in HIV Social Research.

Dissemination of NCHECR's research output is undertaken through publication in scientific journals and a series of surveillance reports.

The Centre conducts its research through two areas:

- The Therapeutic Research Unit
- The Epidemiology Unit.

## Director's Report

The year 2000 has been remarkably productive for the National Centre in HIV Epidemiology and Clinical Research. We have consolidated and built on a number of areas that have become priorities for HIV/AIDS research.

### AIDS vaccine

The search for an AIDS vaccine has gained considerable momentum. NCHECR, in a consortium with colleagues from public and private institutions from around Australia, was successful in being awarded a contract from the United States National Institutes of Health (NIH) to develop a prime boost DNA-fowlpox vaccine.

The basic research and development has been carried out over a number of years in Australia at the Australian National University, CSIRO and the University of Melbourne. This contract commits us to the manufacture of vaccine components and the conduct of phase I and II clinical trials in Australia and Thailand.

The expertise of NCHECR in clinical trials work was recognised by the selection of UNSW to be the lead institution for this work. The formal involvement of social researchers and community-based organisations together with the laboratory scientists, clinical researchers and epidemiologists is an excellent example of the partnership approach to HIV/AIDS that has served us so well over many years of the epidemic in Australia.

### International role

The International AIDS Conference in Durban in July brought world attention to the plight of Africa in dealing with this terrifying epidemic.

Access to the new effective antiretroviral therapy has become prominent on both the research and public health agendas.

For geographical reasons, NCHECR's research focus has been in Asia.

We have been working steadily over a number of years to assist in the development and implementation of prevention and treatment strategies with public health and clinical colleagues.

Examples of these collaborations include the Bangkok-based HIVNAT clinical trials consortium in which NCHECR is a partner and the development and analysis of surveillance systems for HIV and sexually transmitted infections in a number of countries of the region.

The renewed interest in immunotherapy has resulted in NCHECR becoming a regional coordinating centre for clinical endpoint trials for interleukin-2 treatment of people with HIV-infection through ESPRIT, a large clinical trial funded by NIH.

The expertise of NCHECR in implementing and coordinating trials not only in Australia but also regionally and internationally was recognised in our selection for this role.

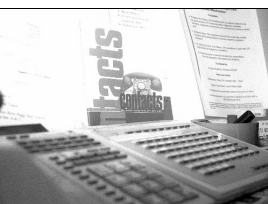
### Lipodystrophy

Recognition of the chronic metabolic toxicity of antiretroviral therapy for HIV infection, first described as lipodystrophy syndrome by Australian network colleagues in 1998, has played a key role in changing treatment guidelines. The difficulty of describing many of these complications for regulatory, diagnostic and surveillance purposes led to recognition of the need for a standardised international case definition, which NCHECR was commissioned to develop through a grant from the European Medicines Evaluation Agency.

### Surveillance

Analyses of NCHECR's national surveillance systems for HIV/AIDS revealed a number of important trends and patterns including, for the first time in a decade, an increase in survival following AIDS diagnosis, but on the other hand a lower than expected impact of





preventive interventions for mother to child HIV transmission.

The “detuned” method for detecting early HIV infection was also introduced in Australia on a pilot basis, to further augment our surveillance capacity.

NCHECR also supported developments in hepatitis C surveillance during 2000, focusing on improving Australia’s ability to identify newly acquired cases.

At the same time, surveillance for risk behaviour among population groups at higher risk of HIV and hepatitis C infection found indications of an increase in unsafe practices, pointing to the need to refocus prevention activities.

**Observational database**

Clinical research programs at NCHECR were strengthened through an expanded HIV observational database, which is now reporting on over 1000 people with HIV infection seen at 25 sites across Australia. Clinical aspects of hepatitis C infection were explored through comprehensive epidemiological analyses of national data on people treated with interferon, and of studies published in the international literature on progression to cirrhosis.

**Supervised injecting**

A groundbreaking decision by the New South Wales Government in 1999 resulted in plans being drawn up for Australia’s first medically supervised injecting centre, to be set up on a trial basis with the goal of reducing the health risks of illicit drug injecting. NCHECR was centrally involved in the team developing the evaluation protocols for the centre, which was due to open in early 2001.

All of these achievements are not possible without the support of numerous people, including our dedicated staff, the NCHECR networks of clinical trial investigators and surveillance sites and our Scientific Advisory Committee. I am particularly grateful to the chair of the Scientific Advisory Committee, Professor Peter McDonald, and to the Dean of the Faculty of Medicine at The University of New South Wales, Professor Bruce Dowton, for all the input and support they have given the Centre over the last year.

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

## *The National Centre in 2000*

### **Epidemiological programs**

The epidemiological research program of the NCHECR continues to cover a diverse range of topics. Surveillance and monitoring for public health purposes, carried out in association with the States and Territories, is the foundation on which the program is built. Activities in these areas are augmented and complemented by collaborative research programs designed to address specific questions in the areas of prevention, treatment and health services.

### **Surveillance systems, analyses and methods**

Ongoing improvement and application of Australia's surveillance systems for HIV infection continued to be a central focus of NCHECR's activity in 2000. As transmission levels have been low over the past few years, the challenge is now to ensure that these surveillance mechanisms remain sensitive to shifts in transmission patterns, of the kind that have been shown to be capable of occurring over relatively short time frames in a number of countries.

Survival following AIDS was found to have increased for the first time in a decade. This improvement, essentially attributable to the use of more effective antiretroviral treatment, follows substantial reductions in the incidence of AIDS, also due to better treatment. Another analysis of AIDS cases showed that country of birth was associated with some AIDS defining illnesses, including tuberculosis.

Analysis of the results of paediatric HIV surveillance in 2000 showed that the number of maternally transmitted cases in Australia has remained very low, and the transmission rate has declined since the introduction of a range of preventive interventions, including antiretroviral treatment. The transmission rate is nevertheless higher than would be expected if all women with HIV who were having children were gaining full access to these interventions.

During 2000, NCHECR worked with the States and Territories under the auspices of the Communicable Disease Network of Australia and New Zealand to improve the reporting of hepatitis C diagnosis in Australia. The emphasis was identification and characterisation of cases of newly acquired hepatitis C infection, to provide a better indication of current transmission patterns in Australia.

Agreement was also reached in 2000 with the Australian Red Cross Blood Service in regard to the national reporting of information on hepatitis B and C in blood donors.

Surveillance for sexual and injecting risk behaviour has become increasingly important in Australia as a means of assessing the requirements and impact of prevention programs. The Periodic Surveys of gay men in 2000 have shown an increase in self-reported risk behaviour in several capital cities, for reasons that may be related to the optimism surrounding new treatments.

An important development for HIV surveillance in 2000 was the introduction, on a pilot basis, of the so-called "detuned" method of testing blood specimens for HIV infection. Based on the ELISA test procedure, the detuned method can be used to determine whether a person has acquired HIV infection in the recent past, thereby providing a means of assessing transmission risks in a more timely fashion. Initial testing of some 150 specimens in 2000 indicated that the method will be of considerable value in improving Australia's capacity for HIV surveillance.

Months of painstaking activity in data compilation and report writing culminated in the release of the Annual Surveillance Report for 2000, again a key initiative of the NCHECR.

The report includes an increasing amount of information on hepatitis C and sexually transmissible infections, and continues to be the authoritative resource for program development and evaluation.



## **Social epidemiological research**

Research into the social and behavioural determinants of HIV and hepatitis C infection was pursued through a number of projects, generally in collaboration with the National Centre in HIV Social Research.

The Positive Health cohort of people with HIV infection continued its follow up, and the post-exposure prophylaxis study expanded to become one of the largest of its kind in the world.

With the successful awarding of a grant from the US National Institutes of Health to undertake vaccine development, planning began during 2000 for a new cohort of gay men without HIV infection at enrolment. It is planned that the study, to be known as HIM, will monitor a range of social and behavioural factors with relevance to a potential HIV vaccine, as well as the occurrence of other sexually transmitted infections.

During 2000, funding for the national survey of sexual behaviour was transferred from the NHMRC to the Commonwealth Department of Health and Aged Care. This change resulted in a more central role for NCHECR, including co-chairing of the survey's advisory committee and representation among the principal investigators.

## **Clinical epidemiological research**

NCHECR maintained its active participation in CASCADE, a collaboration based in Europe that is studying clinical outcomes and their predictors in over 5000 people with known date of HIV infection. The impact of treatment on the rate of AIDS and death is one of the main questions of interest in the collaboration.

During 2000 the Australian HIV Observational Database was extended to include 21 sites and close to 1500 patients. It was used as the mechanism of recruitment to an international study of cardiovascular endpoints in people with HIV infection.

Epidemiological analyses were undertaken of liver fibrosis in people with hepatitis C infection, using a number of sources of information. Based on an Australian database, predictors of fibrosis were identified, including age at infection, duration of infection and levels of alcohol intake. A systematic international review found that the best estimate of the rate of progression to cirrhosis was much lower than the rate commonly cited.

## **Epidemiological research on pathogenesis and disease progression**

In continuing investigation of host and virological factors in people with HIV infection whose progression rate is slow, it was found that viral diversity, as measured in the nef/LTR region, was higher in people whose viral load was increased. Cytotoxic T-cell activity was also elevated in people with a higher likelihood of progression, even after taking account of differences in viral load.

A national analysis of time trends in AIDS-related cancer showed that there had been a marked decline in Kaposi's sarcoma, previously the most common form of malignant disease in people with HIV infection in Australia. In contrast, there had been a much smaller drop in the incidence of non-Hodgkin's lymphoma, which was now the most common AIDS-associated cancer. It appears that antiretroviral treatment is more effective against the herpes virus that is the causal agent for Kaposi's sarcoma, than it is against the still unidentified factors responsible for lymphomas.

## **Mathematical modelling**

While NCHECR has always used mathematical models to assist in the interpretation of epidemiological data, their application has broadened considerably in 2000. Applications in the past have related primarily to estimation and projection of the HIV and hepatitis C



epidemics in Australia. This year, models were applied to estimate the number of dependant heroin users in Australia, the impact of donor deferral strategies on infectious risk in the blood supply, and the impact of improved therapy in the risk of HIV transmission among gay men in Australia.

### **Epidemiological research in health services**

The national survey of antenatal testing for HIV and hepatitis C infection was completed in 2000. The survey found that over the preceding year, some 30-40% of women were tested for HIV and hepatitis C antenatally. Prevalence of infection was roughly 1 in 5000 for HIV and 1% for hepatitis C.

NCHECR began collecting data for the evaluation of the medically supervised injecting centre in Kings Cross that was due to open in early 2001. Baseline information on community attitudes was obtained through a telephone survey, and the annual study of attenders at needle and syringe programs was expanded to include factors relevant to the establishment of the injecting centre.

### **Therapeutic Research Unit**

Building upon the foundations laid in 1999, the Therapeutic Research Unit continued to undergo further evolution in research agenda and structural changes. These changes included real expansion of personnel arising from project related funding and expansion arising from the continued unification of CHRN and TRU.

### **Research program evolution**

The highlight of 2000 was the award, through the US National Institutes of Health, of an HIV Vaccine Design and Development Team contract.

With an estimated 15,000 new HIV infections per day, it is clear that a prophylactic vaccine in

addition to other preventative measures may have an enormous impact on the global epidemic. This award provides a tremendous opportunity for Australian researchers to make a contribution in this regard.

The award represents the biggest single research contract ever received by an Australian group from an overseas source.

The contract was made between the NIH and UNSW as primary offeror. UNSW collaborates with The John Curtin School of Medical Research at the Australian National University, University of Melbourne, University of Newcastle, Commonwealth Scientific and Industrial Research Organisation, Virax Holdings and the Australian Federation of AIDS Organisations.

The broad project goals are to design, manufacture and undertake two phase I clinical trials of candidate HIV vaccines over the next five years. The vaccines are based upon a strategy of DNA prime and recombinant fowlpox boost. Each vaccine will contain genetically modified sequences of the HIV genome. The fowlpox vaccine may also contain the gene for a human cytokine. This project brings many new challenges to the entire group largely arising from its focus on product development rather than just the conduct of clinical trials.

Continuing the network's investigations into lipodystrophy, the NCHECR coordinated the MITOX study in which patients with lipodystrophy were randomised to replace their thymidine analogue HIV reverse transcriptase inhibitor with abacavir. The rationale for this study is that thymidine analogues were responsible for at least some of the syndrome.

This study followed the PIILR trial that indicated replacement of a protease-inhibitor in an antiretroviral regimen did little to resolve lipodystrophic symptoms and signs. Further progress was made following an international meeting that had identified the absence of a



case-definition for lipodystrophy as a significant problem for further research.

The NCHECR in collaboration with Andrew Carr was asked to coordinate an international study to develop a case-definition on behalf of the European Medicines Evaluation Agency. The Case-Definition Study collects comprehensive metabolic, body habitus, imaging and demographic data from approximately 800 patients in 35 clinical sites from 4 continents.

In keeping with current issues the NCHECR developed a clinical protocol to evaluate different research methods for assessing HIV drug resistance in virus from patients currently failing a regimen of combination antiretroviral therapy. The CREST protocol received financial support from each of the six pharmaceutical companies that market antiretroviral therapies, in addition to marketers of technologies for HIV drug resistance testing. The study randomised patients to receive a genotypic resistance test or a virtual phenotypic resistance test. Forty-one clinical sites in the network recruited patients and nine laboratories in Australia and New Zealand undertook to provide uniform genotypic resistance tests.

The network continued to contribute to ongoing long-term studies such as INITIO, ESPRIT and SILCAAT.

### **Structural evolution**

A total of nine new staff joined the Therapeutic Research Unit during 2000. This more than compensated for the usual turnover of personnel.

New staff were appointed as clinical project leaders, coordinators, data managers and administrators. These positions constitute the project teams that support the conduct of clinical research projects in the NCHECR network.

Depending upon the size, type and age of a given project the nature of the project team will

change. Importantly, project team members will support more than one project, thereby making best use of available resources. Further support for research programs in the NCHECR network is provided through the distribution of funds for research nurse coordinators at participant sites.

After a process of consultation with the network a uniform algorithm for funding was implemented based entirely upon patient recruitment and follow-up. This system is under regular consultative review to ensure as far as possible that the limited resources are used most efficiently and effectively.

A markedly different model is being evaluated among primary practices in Melbourne sites that have agreed to share full-time research nurse coordinators, employed through the Clinical Research Unit of The Alfred Hospital.

Continued monitoring of these positions will determine the success of this approach and its applicability to other settings.

For a number of years the Working Groups have played a central role in advising the Director of the NCHECR on research priorities for the network.

In recent years a number of investigators and working group members indicated that as currently convened the working group meetings did not facilitate interactions between the different special interest groups. As a consequence the NCHECR now convenes all the working groups together twice yearly.

In the bi-annual meetings all of the working groups are able to discuss broad clinical and methodological issues in plenary sessions as well as provide feedback on proposals emanating from individual working groups.

If this format continues to prove successful it is sufficiently flexible to allow further expansion. In order to preserve continuity, individual working groups can meet more frequently if they wish.

## *Epidemiology Unit*

The main achievements of the Epidemiology Unit are described in more detail below. We are indebted to many collaborating individuals and agencies around the world.

### **Surveillance systems**

#### **Routine HIV and AIDS reporting**

State and Territory health authorities continued to monitor and notify the NCHECR of new diagnoses of HIV infection, AIDS, and deaths following AIDS. Cases of perinatal exposure to HIV were also monitored in collaboration with the Australian Paediatric Surveillance Unit.

In the past six years, AIDS incidence has dropped by almost 85%, from 955 cases in 1994 to 147 cases in 1999. The annual number of new diagnoses of HIV infection has also continued to decline to around 700 diagnoses in 1999, whereas diagnoses of newly acquired infection remained relatively stable at 150 – 200 cases per year.

Software for the national surveillance databases is being upgraded and strategies for transferring data to the new databases are under development.

**Investigators:** Ann McDonald, Patty Correll  
**Collaborators:** State and Territory health authorities; Australian Paediatric Surveillance Unit; National Serology Reference Laboratory, Australia

#### **Case reporting for hepatitis C infection**

The National Hepatitis C Surveillance Committee was established as a subcommittee of the Communicable Disease Network of Australia and New Zealand, in 1999, to oversee the implementation of hepatitis C surveillance procedures at a national level. The committee's work has been coordinated by NCHECR.

Through a series of meetings during 2000, including the first face-to-face encounter, a standardised format was developed for the

national reporting of diagnoses of hepatitis C infection. This development has focussed on cases that were determined to have been recently acquired.

Particular issues resolved by the Committee included case definitions and reporting of exposure categories.

The extent to which the agreed surveillance procedures for newly acquired hepatitis C infection were implemented during 2000 varied across jurisdictions, but the majority of States and Territories were able to improve their description of incident cases, and the quality of national reporting was correspondingly strengthened.

**Investigator:** Jenean Spencer

#### **Monitoring HIV infection through sexual health clinics**

The extent of testing for HIV antibody and new HIV diagnoses continued to be monitored through a network of six metropolitan sexual health clinics in Australia.

Reports from the United States and the United Kingdom had suggested a recent increase in HIV incidence among homosexually active men.

In Australia, HIV incidence was estimated among men, seen through the sexual health clinics, who reported a history of homosexual contact and who had a negative HIV antibody in 12 months prior to last being seen in a calendar year. In 1993 – 1999, estimated HIV incidence remained relatively stable at 2.1% per year and did not change significantly by year or by age.

**Investigator:** Ann McDonald  
**Collaborator:** Network of sexual health clinics

#### **Monitoring HIV infection among people entering Australian prisons**

The extent and outcome of HIV antibody testing among people received into Australian prisons continued to be monitored in





collaboration with State and Territory Departments of Corrections.

HIV prevalence among prison entrants remained below 0.5% in 1993 – 1999.

**Investigator:** Ann McDonald

**Collaborators:** State and Territory Departments of Corrections

### **Surveillance of HIV, hepatitis C and related risk behaviours among clients at needle and syringe programs**

In October 2000, thirty-five needle and syringe programs, representing all jurisdictions, participated in the NCHECR annual one-week survey of HIV and hepatitis C virus infection and related risk behaviour. Around 2,500 clients completed the survey questionnaire and provided blood for HIV and hepatitis C testing.

Results from the 1999 survey were released in the Annual Surveillance Report 2000.

Prevalence of HIV infection remained low (1.4%) among 2,387 injectors recruited from 34 sites in 1999. Consistent with previous surveys, HIV prevalence remained high among gay, male injectors (17%). Prevalence of hepatitis C virus remained stable at 50%. However, there was a slight increase in hepatitis C virus prevalence among participants reporting less than three years of drug injection from 1998 (17%) to 1999 (20%), particularly among females (20% to 27%).

Trends in type of drug last injected were reported in the Illicit Drug Reporting System (IDRS) Bulletin, October 2000 in collaboration with the National Drug and Alcohol Research Centre.

**Investigator:** Margaret MacDonald

**Collaborators:** Macfarlane Burnet Centre for Medical Research; National Drug and Alcohol Research Centre; St Vincent's Hospital Alcohol and Drug Service; South Australian Drug and Alcohol Services Council; State and Territory health authorities; Needle and Syringe Program sites

### **Monitoring HIV and hepatitis C prevalence among blood donors**

Prevalence of HIV infection among blood donors continued to be monitored in collaboration with the Australian Red Cross Blood Service.

In 1997 – 1999, 13 new diagnoses of HIV infection were reported among blood donors, giving a prevalence of 0.5 per 100,000 donations.

Information on the prevalence of hepatitis C infection among blood donors in Australia was published for the first time in the Annual Surveillance Report 2000. Hepatitis C virus prevalence among blood donors in 1999 was 18.3 per 100,000 donations.

**Investigators:** Patty Correll, Ann McDonald

**Collaborators:** Australian Red Cross Blood Service

### **Monitoring HIV and hepatitis C prevalence among entrants into the Australian Defence Force**

New diagnoses of HIV infection continued to be monitored among entrants to the Australian Defence Force.

Over the past four years, no new cases of HIV infection were reported among entrants into the Australian Defence Force. Monitoring of blood borne viruses among entrants was extended in 1999 to include new diagnoses of hepatitis C infection. In 1999, hepatitis C virus prevalence was 0.2%.

**Investigators:** Patty Correll, Matthew Law

**Collaborator:** Australian Defence Force

### **Occupational exposure to HIV, hepatitis B and hepatitis C infection among health care workers**

A network of hospitals, established by State and Territory health authorities and the NCHECR, collects data on occupational exposures to HIV, hepatitis B virus and hepatitis C virus infection among health care workers.

Conversion of the EpiNet database, used for recording data, from the Epi Info computer program to a Microsoft Access database continued in 2000. Work focussed on improving the reporting component.

A workshop, coordinated by the NCHECR and sponsored by Becton Dickinson Pty Ltd, was held in conjunction with the biennial Australian Infection Control Association Conference in Adelaide in May. The main aim was to provide a forum for people with project responsibility at participating hospitals to discuss any problems that they may have encountered, and subsequent solutions, and also to improve their database, analysis and reporting skills.

**Investigator:** Margaret MacDonald

**Collaborators:** National HIV Surveillance Committee; Melbourne Diagnostic Unit, Melbourne University; State and Territory health departments

### Periodic Survey

The Periodic Surveys began in 1996 in Sydney as a form of behavioural surveillance among gay men at risk of HIV infection. Since then, the survey has been extended to all mainland State capitals, and in 2000 was extended to include Canberra.

In 2000, surveys were conducted in Sydney (February – 2015 completed questionnaires; and August – 901 completed questionnaires), Melbourne (February – 1578 completed questionnaires), Queensland (June – 1285 completed questionnaires), Perth (October – 1035 completed questionnaires) and Canberra (November – 350 completed questionnaires).

A trend of increasing unprotected anal intercourse with casual partners was found in all capital cities where the survey was repeated in 2000. This was the first time that such a trend had been identified outside of Sydney. Analyses indicate that optimism about improved HIV treatments is associated with the increase in unprotected anal intercourse

**Investigators:** Garrett Prestage, Andrew Grulich

**Collaborators:** National Centre for HIV Social Research; Australian Federation of AIDS Organisations; National Association of People with HIV/AIDS

## Surveillance methods and analyses

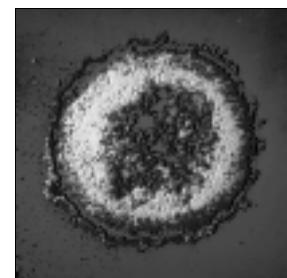
### HIV/AIDS, hepatitis C and sexually transmissible infections in Australia annual surveillance report 2000

The fourth issue of *HIV/AIDS, Hepatitis C and Sexually Transmissible Infections in Australia Annual Surveillance Report* was released in October 2000.

*The Annual Surveillance Report 2000* indicated that an estimated 12,000 people were living with HIV infection in Australia by the end of 1999. The decline in AIDS incidence observed since 1994, due to the fall in HIV transmission rates a decade earlier, had accelerated over the past three years due to improvements in treatments for HIV infection. However, the fall in AIDS incidence was limited to cases diagnosed with HIV infection at least three months prior to AIDS diagnosis. AIDS cases, newly diagnosed with HIV infection in the three months prior to AIDS diagnosis, accounted for an increasing percentage of AIDS cases, from 20% in 1994 to 45% in 1999.

HIV transmission continued in Australia, primarily among homosexually active men. There was no evidence of a recent change in rates of transmission through male homosexual contact or any increase in the very low rate of transmission through injecting drug use or heterosexual contact. Almost half of the new diagnoses of HIV infection attributed to heterosexual contact were in people from countries with high HIV prevalence or their sexual partners.

Hepatitis C was the most frequently reported notifiable infection in Australia in 1999. The annual number of hepatitis C diagnoses among





people aged 15 – 19 years increased substantially from 482 in 1995 to 1,350 in 1999. The number of diagnoses of newly acquired hepatitis C infection continued to increase, to 368 in 1999. Transmission of hepatitis C continued at high levels among people who inject drugs.

Diagnoses of gonorrhoea per 100,000 people increased substantially over the past five years whereas the rate of syphilis diagnoses remained relatively stable. Indigenous people continued to be diagnosed with specific sexually transmissible infections at much higher rates than non-Indigenous people.

**Investigator:** Ann McDonald

**Collaborators:** Collaborating networks in surveillance for HIV/AIDS, hepatitis C and sexually transmissible infections in Australia

### **Australian HIV Surveillance Report**

The 10-year anniversary of publication of the quarterly Australian HIV Surveillance Report, in April 2000, was highlighted by the publication of articles reviewing the past decade of HIV/AIDS surveillance in Australia and the value of sentinel surveillance for HIV infection in sexual health clinics.

Reports on the Australian HIV Observational Database, the 13<sup>th</sup> World AIDS Conference and surveillance of HIV risk behaviour among gay men in Australia were published in the January, July and October issues of the Australian HIV Surveillance Report, respectively.

An evaluation was carried out on the value of continued publication of the quarterly Australian HIV Surveillance Report, given the availability of the Annual Surveillance Report.

Responses to the evaluation indicated that the Australian HIV Surveillance Report would continue to be published quarterly in both paper and electronic formats.

Both the Australian HIV Surveillance Report and HIV/AIDS, Hepatitis C and Sexually Transmissible Infections in Australia Annual

Surveillance Report are available at [www.med.unsw.edu.au/nchechr](http://www.med.unsw.edu.au/nchechr).

**Investigators:** Ann McDonald, Yueming Li

**Collaborators:** State and Territory health authorities; Network of sexual health clinics; Australian Paediatric Surveillance Unit

### **Linkage between the National AIDS Registry and the National Death Index**

To estimate the completeness of AIDS notification in Australia, 8,070 AIDS cases, including 5,728 deaths following AIDS, notified to the National AIDS Registry were matched to deaths associated with AIDS, registered with the National Death Index. Matched cases are being reviewed to confirm cases of death following AIDS; and to identify and follow up AIDS cases for which a death has apparently not been notified.

**Investigators:** Ann McDonald, Patty Correll

**Collaborators:** Australian Institute of Health and Welfare  
State and Territory health authorities

### **Use of the "detuned" ELISA for monitoring newly acquired HIV infection**

Patterns of HIV transmission among new diagnoses of HIV infection have been monitored in Australia from 1991, based on a reported history of a negative HIV antibody test in the 12 months prior to HIV diagnosis or a clinical diagnosis of HIV seroconversion illness following exposure to HIV.

The US Centers for Disease Control and Prevention has recently developed a serological test for identifying newly diagnosed HIV infection that was recently acquired, even in the absence of prior negative test or a clinical diagnosis of HIV seroconversion illness. Approval was obtained from the US Centers for Disease Control and Prevention for the NCHECR, in collaboration with the NSW State Reference Laboratory for HIV, to participate in monitoring cases of early HIV infection using the so-called "detuned ELISA".

Test kits were obtained from the USA and testing of cases of HIV infection newly diagnosed at St Vincent's Hospital, Sydney, has commenced. To date, 149 cases of HIV infection diagnosed in 2000 have been tested with the "detuned ELISA" and 48 cases of early HIV infection have been identified.

**Investigators:** Ann McDonald, Matthew Law

**Collaborators:** NSW State Reference Laboratory for HIV; NSW Health Department

### Survival following AIDS

While many of the initial studies of the benefit of highly active antiretroviral therapy demonstrated its effectiveness in reducing the rate of HIV disease progression, few had specifically focussed on its effect in people with AIDS.

Survival following AIDS was analysed based on 4,814 AIDS cases, diagnosed in Australia in 1991 – 1996, and 3,193 deaths following AIDS that had been notified to the National AIDS Registry by 30 June 1999. Median survival following AIDS was 17.7 months. Survival following AIDS increased from 16.0 months in 1991 to 27.7 months in 1996. Factors independently associated with improved survival were year of AIDS diagnosis, late HIV diagnosis, CD4+ cell count greater than 50 cells/ $\mu$ l, age of less than 45 years and presentation with *Pneumocystis carinii* pneumonia only or Kaposi's sarcoma only. The risk of death declined over time for all initial AIDS defining illnesses except non-Hodgkin's lymphoma.

Temporal improvements in survival following AIDS were coincident with the introduction of combination antiretroviral treatment for HIV infection and suggest that treatment is also effective in limiting disease progression among people with advanced HIV infection.

**Investigators:** Yueming Li, Ann McDonald, Greg Dore

### Factors influencing mother to child HIV transmission

Large overseas studies of perinatally exposed children have shown that use of antiretroviral therapy in pregnancy, elective caesarean delivery, and avoidance of breastfeeding by women with HIV infection significantly reduces the risk of mother-to-child HIV transmission from around 30% to less than 5%.

Analysis of 204 cases of perinatal exposure to HIV, reported in Australia by December 1999, indicated that 50% of exposed children were born to women whose HIV infection was diagnosed antenatally. Use of the interventions by these women reduced the rate of HIV infection from 25% among children born in 1982 – 1993 (when avoidance of breastfeeding was the only known intervention) to 19% among children born in 1994 – 1999 (when antiretroviral use in pregnancy and elective caesarean delivery were also known to be effective in reducing mother-to-child transmission).

The rate of mother-to-child HIV transmission observed in Australia remains high in comparison with other industrialised countries.

**Investigator:** Ann McDonald

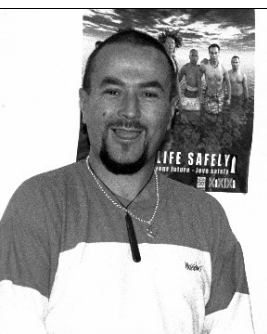
**Collaborators:** Australian Paediatric Surveillance Unit; State and Territory health authorities

### AIDS clinical spectrum by country/region of birth

An analysis of the influence of country of birth on the pattern of disease among people diagnosed with AIDS in Australia over the period 1992-1998 was undertaken.

Of the 4,269 people notified with AIDS over the study period, 25% were born overseas. AIDS cases born in sub-Saharan Africa had an increased risk of tuberculosis and cryptococcosis, but a decreased risk of oesophageal candidiasis and *Pneumocystis carinii* pneumonia compared to AIDS cases born in Australia.





Tuberculosis risk was elevated among AIDS cases born in other developing countries. The risk of tuberculosis was particularly high among recent immigrants from developing countries. Country of birth had no influence on risk of cytomegalovirus disease (CMV) and *Mycobacterium avium* (MAC) complex infection. People born in Australia and other developed countries had a very similar AIDS clinical spectrum.

The findings suggest that environmental microbial habitats are important determinants of opportunistic infection risk, but that for some ubiquitous organisms, such as CMV and MAC, lack of diagnostic capacity may have influenced previously low prevalence estimates in developing country settings.

**Investigators:** Greg Dore, Yueming Li, Ann McDonald

**Collaborator:** National HIV Surveillance Committee

### Monitoring disease progression from newly acquired HIV infection

The rate of HIV disease progression among people with a known date of HIV infection was monitored by matching cases of newly acquired HIV infection to the corresponding AIDS diagnosis, notified to the National AIDS Registry.

Of 1,500 cases of newly acquired HIV infection, 130 had been notified with AIDS. Age greater than 30 years and CD4+ cell count <500/μl at HIV diagnosis, a diagnosis of HIV seroconversion illness, and infection acquired in 1991 – 1994 compared to 1995 – 1998 were independently associated with disease progression. Gender was not associated with HIV disease progression.

**Investigators:** Ann McDonald, Yueming Li

**Collaborators:** State and Territory health authorities

## Social epidemiological research

### Risk factors for seroconversion

In response to literature reports that circumcision was protective against HIV infection in heterosexual men in Africa, we analysed whether this was a risk factor in gay men in Sydney in the Sydney seroconverters study.

We found that men infected with HIV through insertive anal intercourse were no more or less likely to be circumcised than men infected through receptive anal intercourse, indicating that circumcision was not protective against HIV infection.

Policy papers were written for the ANCAHRD National HIV Committee, and a paper was accepted for publication. In addition, a new questionnaire was developed and enrolment began in a study of risk factors for HIV seroconversion. The study will focus particularly on newly emerging HIV risk behaviours, such as sexual negotiation based on viral load.

**Investigators:** Andrew Grulich, Olympia Hendry, Garrett Prestage

**Collaborator:** National Centre in HIV Social Research

### Studies of hepatitis C incidence

NCHECR investigators were involved in two NHMRC-funded studies of hepatitis C incidence and its risk factors. One study, at UNSW School of Pathology and Prince of Wales Hospital, involved the recruitment and follow up of prisoners.

NCHECR assisted in conducting and reporting on the pilot study, and has since contributed to development of the study database. The second study is taking place in South West Sydney, the Illawarra, and the Northern Rivers area, and involves the recruitment and follow-up of people who inject drugs. The NCHECR role has been to advise on the design and conduct of the study.



**Investigator:** Jenean Spencer

**Collaborators:** UNSW

Department of Pathology, Royal Prince Alfred Hospital; Prince of Wales Hospital

### Vaccine preparedness cohort study

As part of the NIH-funded vaccine development project described elsewhere in this report, a protocol was developed for a large cohort study.

The study will recruit 500 gay men a year for five years to monitor HIV incidence, and to assess socio-behavioural factors in relation to the vaccine trial. It will provide data that will be essential in preparing for a possible future vaccine efficacy trial in Sydney.

In 2000, a questionnaire was developed and the mechanism of recruitment was designed. Additional funding was obtained from NSW Health to allow a commencement of the cohort in 2001. This cohort study will be the first time centralised blood collection has been part of a large community-based study at the NCHECR and discussions were held about possible mechanisms for coordinating this. Centralised collection and storage of blood will allow the accurate measurement of HIV incidence and will also allow the assessment of prevalence and transmission of other sexually transmitted infections in gay men.

**Investigators:** Andrew Grulich, Garrett Prestage

**Collaborator:** National Centre in HIV Social Research

### Positive health study

The Positive Health cohort study commenced in 1998 to track the treatments-related behaviour of people with HIV in New South Wales and Victoria.

In 2000, a follow-up survey instrument covering a broad range of health-related behaviours was developed. Follow-up interviews were conducted with over half of the participants, and recruitment commenced for an additional 100 participants. Overall, a

third of the participants had been hospitalised as a consequence of their HIV infection, including 11% who had been hospitalised at some time in the previous year. Fifty-one percent had previously reported a CD4 cell count of less than 200 (per microlitre), but this was the case in only 18% of cases at the time of the interview. Seventy-seven percent were currently taking combination anti-retroviral therapy.

**Investigators:** Garrett Prestage, Andrew Grulich, Olympia Hendry

**Collaborators:** National Centre in HIV Social Research; Australian Research Centre for Sex, Health and Society; Australian Federation of AIDS Organisations; National Association of People with HIV/AIDS

### Non-occupational post-exposure prophylaxis (PEP)

While PEP has been available after occupational exposures to HIV for many years, in 1998, NSW became one of the first jurisdictions in the world to publish guidelines recommending the use of PEP after non-occupational exposure. The NCHECR is monitoring the use of non-occupational PEP through an observational study.

During 2000, the rate of enrolment in this study increased, and the study is now one of the largest of non-occupational PEP in the world. The study was extended to include Queensland, where this therapy has recently become available. Among over 200 participants, there have been no seroconversions on PEP, although one participant seroconverted because of continuing HIV risk behaviour after receiving PEP. Side effects have been common, although severe side effects were rarely reported. Several participants received PEP on more than one occasion.

**Investigators:** Andrew Grulich, Patty Correll, Don Smith, Olympia Hendry, Belinda O'Sullivan

**Collaborator:** National Centre in HIV Social Research





### National survey of sexual health and sexual behaviour

Many countries have performed national sex surveys, which have helped to build a comprehensive picture of the HIV risk behaviour of their population. This study aims to provide such data for the first time for the Australian population.

During 2000, the funding for this project was transferred from the NHMRC to the Commonwealth Department of Health and Aged Care, and a second pilot study was performed. The full national survey, which will randomly sample over 10 000 adult Australians, will be undertaken in mid 2001.

**Investigator:** Andrew Grulich

**Collaborators:** Australian Research Centre in Sex, Health and Society; Central Sydney Area Health Service; National Centre in HIV Social Research; NSW Health Department; Deakin University

### Sydney Men and Sexual Health Study (SMASH)

Interviews with over 1,000 gay men were completed during 1999 in the final interviews of this cohort study that started in 1993.

Further analyses are ongoing to examine the effectiveness, or otherwise, of gay men's risk reduction strategies such as sexual positioning and withdrawal prior to ejaculation. In addition, a report on changes in behaviour over time was produced. This analysis found there were few changes in men's patterns of HIV testing, relationships and sexual behaviour between 1993 and 1998.

**Investigators:** Andrew Grulich, Garrett Prestage, Yueming Li

**Collaborators:** National Centre in HIV Social Research; Australian Council on AIDS

### Sydney Women and Sexual Health (SWASH)

Behavioural surveys of women in contact with the gay community were commenced in 1996 to track the behaviour of this population that is

potentially at risk of HIV infection. The third bi-annual survey was conducted in February 2000. Over 1000 women participated in the survey. Data analysis is ongoing.

**Investigator:** Garrett Prestage

**Collaborators:** National Centre in HIV Social Research; AIDS Council of New South Wales

### Sydney Asian Gay Men's Survey

This survey of the HIV risk behaviour of gay men of Asian descent was completed between December 1999 and January 2000, with 319 completed questionnaires. Respondents came from a range of East Asian backgrounds, with men of Chinese descent comprising about half the sample.

Participants were less likely to report unprotected anal intercourse with both regular and casual partners than were other gay men recruited through the periodic survey. They were less likely to have been tested for HIV than Caucasian men. These results were released in a community report.

**Investigator:** Garrett Prestage

**Collaborators:** National Centre in HIV Social Research; Multicultural HIV Project

## Clinical epidemiological research

### Cascade study

Cohorts of people with known duration of infection offer the best opportunity to understand the natural history of HIV infection and assess the effect of different risk factors on disease progression.

Factors influencing progression are being examined in a European-based multi-centre study of over 5,000 seroincident cases from 11 countries. Individuals enrolled in the Australian AIDS Prospective Study and the Primary Infection Cohort have been included in the study, and their status was updated during 2000.

Of particular interest, in current analysis, is the impact of treatment on disease progression as some recent studies have indicated that the profile of opportunistic infections in people with HIV infection had changed over time and that survival time to AIDS has lengthened since the beginning of the epidemic. These changes have been largely attributed to the increased availability of treatment to prevent opportunistic infections such as *Pneumocystis carinii* pneumonia (PCP) and more effective anti-retroviral drugs.

**Investigator:** Lesley Ashton

**Collaborator:** Concerted Action on Seroconversion to AIDS and Death in Europe, UK

### The Australian HIV Observational Database

The Australian HIV Observational Database (AHOD) was established to observe ongoing information relating to demographic factors, markers of HIV disease stage and treatment uptake.

Recruitment to the AHOD cohort commenced in June 1999, and since then, there have been three data transfers from the collaborating sites to the NCHECR. The first data transfer occurred in September 1999. Subsequent data transfers were also performed in March and September 2000. In total, 1476 patients from 21 sites throughout Australia have now been recruited to the database.

Data on trends in antiretroviral treatment uptake and rates of change of combination treatments were presented at ASHM. Higher rates of combination antiretroviral treatment change were mainly associated with patients commencing combination therapy at a CD4+ count below 200 cells/ $\mu$ l. Summary biannual reports were published in June and December and data was also presented in the *Annual Surveillance Report 2000*.

**Investigators:** Kathy Petoumenos, Matthew Law

**Collaborators:** Network of up to 30 sites (GPs, hospitals and sexual health clinics throughout Australia)

### The Data Collection on the Adverse Events of Anti-HIV Drugs (DAD) Study

The DAD Study is a large, international, collaborative study aimed at assessing the medium to long-term effects of antiviral treatment of people with HIV in terms of possible increased risk of cardiovascular events. The study is coordinated through the Copenhagen HIV Programme in Denmark, and will involve observational data from approximately 20,000 people with HIV from 11 cohorts in Europe, USA and Australia followed for two years.

The Australian contribution to the DAD Study is based on eight sites in the Australian HIV Observational Database (AHOD). Anonymised baseline data on 667 patients recruited into AHOD were forwarded to the coordinating office in Copenhagen in December 2000. Follow-up data will be forwarded biannually for the next two years.

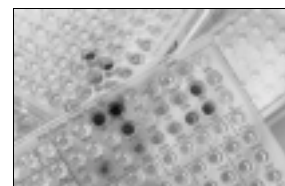
**Investigators:** Kathy Petoumenos, Matthew Law

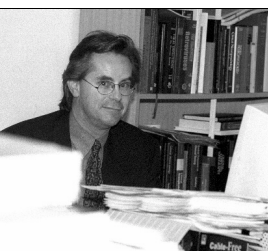
**Collaborators:** Network of up to 30 sites (GPs, hospitals and sexual health clinics throughout Australia)

### Neurological disease in HIV infection

Further analyses from an AIDS dementia complex (ADC) retrospective, case-control study were performed to examine factors that influence survival following AIDS dementia complex.

Based on 110 ADC cases matched with controls within St Vincent's Hospital HIV Unit over the period 1988-1994, the study identified several factors associated with survival following ADC. These included severity of ADC at diagnosis, CD4+ cell count and haemoglobin level. Analyses of ADC survival in the era of HAART were also performed, based





on data from the National AIDS Registry over the period 1993-1998. These analyses demonstrated a marked improvement in median survival following ADC, from 11.8 months for people diagnosed in 1993-1995 to 42.5 months in 1996-1998, well in excess of the increase in median survival among all AIDS cases (18.9 to 39.6 months).

**Investigators:** Greg Dore, Ying Pan, Bruce Brew

### **National Incident Hepatitis C Case Register (NIHCR)**

The NIHCR was established with Commonwealth seed money in 1999, with the aim of describing and following up incident cases of hepatitis C infection to improve our understanding of both the transmission and progression of this disease. It was proposed that the main sources of recruitment to the registry would be the Red Cross Blood Service, which hold information on cases acquired through blood transfusion prior to the implementation of universal blood screening in 1990, and the State and Territory Health Departments, which receive case reports of incident infection through routine surveillance.

During 2000, development activities for the NIHCR continued. The advisory committee established for this project approved study protocols, and pilot activities started to provide an indication of the feasibility of the two proposed recruitment mechanisms.

**Investigator:** Jenean Spencer

**Collaborator:** Macfarlane Burnet Centre for Medical Research

### **Predictors of severity of hepatic fibrosis among people with chronic hepatitis C: analysis of the S100 interferon database**

As a requirement for interferon prescription for chronic hepatitis C, through the Commonwealth Government-funded S100 scheme, baseline data on demographic and clinical characteristics was forwarded to a

centralised database at John Hunter Hospital, Newcastle. Individual pre-treatment information was collected on 2,986 patients from 61 hospital-based liver clinics from October 1994 through December 1996.

Five factors were found to be independently associated with more severe hepatic fibrosis: age at infection; duration of infection; alcohol intake in previous six months; mean ALT level; and HBcAb. There was no association with gender, ethnicity, source of infection, or HBsAg status. These associations can assist in the targeting of people for liver biopsy investigation and therapeutic intervention.

**Investigators:** Greg Dore, Mark Danta, Yueming Li

**Collaborators:** John Hunter Hospital, Newcastle; Australian Liver Association

### **Hepatitis C natural history review and mortality estimates**

Although there have been many studies on the natural history of hepatitis C, conflicting conclusions have been drawn as to the rate of liver disease progression. A systematic review of the natural history of chronic hepatitis C was therefore undertaken to address this uncertainty. Data collected included the cirrhosis prevalence and estimated mean duration of infection within each study population.

Based on 52 studies which met the inclusion criteria, the modelled prevalence of cirrhosis 20 years after initial infection was 25% in liver clinic-based studies, 28% in post-transfusion cohorts, 7% in community-based cohorts, and 4% in studies of people newly diagnosed on blood donor screening.

The community-based cohorts appeared most representative of the broader population of people with hepatitis C. Based on these studies; chronic hepatitis C appears to progress more slowly than previously envisaged. The progression estimates from community-based cohorts were then used to model excess

mortality in chronic hepatitis C, with a resulting estimated life expectancy reduction of two to three years. This estimate is likely to be considerably higher in certain subgroups such as those with heavy alcohol intake.

**Investigators:** Greg Dore, Matthew Law

**Collaborators:** Prince of Wales Hospital; Australian Liver Association; Macfarlane Burnet Centre for Medical Research; Swiss Re Life and Health Australia Limited

### Problems with publishing results of interim analyses of randomised clinical trials

It has become common for interim analyses of randomised, clinical trials of HIV therapy to be presented at international conferences, even though it is widely accepted that this introduces methodological and ethical problems.

A simulation study was developed to illustrate the extent of biases that may arise through this practice. The study showed that publication of interim results could, under certain circumstances, reduce the power of a study from 80% to 37%.

**Investigator:** Matthew Law

## Epidemiological research on pathogenesis and disease progression

### Host genetic factors associated with long-term asymptomatic HIV-1 infection

The natural history of infectious diseases such as HIV-1 presents a major challenge in identifying single genes that can influence disease progression. Genetic variations (polymorphisms) that occur within the chemokine co-receptor genes, as well as interactions that may occur between the regulatory regions of these genes, may ultimately influence rates of disease progression.

Associations between CCR5 promoter polymorphisms and nonprogression were examined within the Australian long-term nonprogressor (LTNP) cohort. Individuals lacking the *CCR5 59029A/CCR5 59353C* homozygous genotype were more likely to progress more slowly toward AIDS or death.

**Investigator:** Lesley Ashton

**Collaborators:** Graeme Stewart, Alison Clegg, Robyn Biti, Prina Badhwar, Peter Williamson, Department of Clinical Immunology, Westmead Hospital; Andrew Carr, Claudette Satchell, Kate McGhie, Centre for Immunology, St Vincent's Hospital

### HIV-1 species diversity in long-term nonprogressors

The *nef* gene of HIV has been shown to play an important role in controlling viral replication. However, deletions occurring within this region of the HIV-1 genome have been reported to have a limited role in long-term asymptomatic HIV infection, both in animal studies and in small series of human subjects.

Sequence variations occurring within the *nef*LTR region of 38 individuals enrolled in the Australian long-term nonprogressor (LTNP) cohort were investigated to examine the role of *nef* variations in long-term asymptomatic HIV-1 infection.

Variable diversity was observed in the *nef*LTR region of long-term nonprogressors. Increased diversity occurred at a greater frequency in individuals with higher levels of viral load and these mutations appeared to cluster at certain sites within the Nef protein. The results provide further evidence that subtle changes occurring within the *nef*LTR region of the HIV-1 genome are associated with levels of HIV-1 RNA and appear to contribute to disease pathogenesis.

**Investigator:** Lesley Ashton

**Collaborators:** Nick Deacon, David Rhodes, National Centre in HIV Virology Research, Macfarlane Burnet Centre for Medical Research Claudette Satchell, Kate McGhie, Centre for Immunology, St Vincent's Hospital



### The cytotoxic T-cell (CTL) response: associations with delayed disease progression

HIV disease progression has been attributed to strong cytotoxic T-cell (CTL) responses to HIV-1 antigens. CTL responses were characterised in a subset of long-term nonprogressors (LTNP) enrolled in the Australian LTNP cohort to examine whether the strength and diversity of these responses are associated with long-term asymptomatic HIV infection.

Detectable CTL responses to HIV *pol* and *gag* genes were correlated with higher levels of HIV-1 RNA, ICD p24 antigen,  $\beta_2$ -microglobulin and CD8+ T-cells. However, there were no apparent associations between chemokine co-receptor mutations and the presence of an effector CTL response.

Individuals with detectable CTL responses at study entry were more likely to progress within four years compared to those without detectable CTL responses. Although CTL effector responses were associated with disease progression, viral load remained the strongest predictor of increased risk of disease progression in this group.

These findings demonstrate the importance of HIV replication in generating an effector CTL response and show that detection of CTL response is a predictor of progression in people with long-term asymptomatic HIV-1 infection.

**Investigator:** Lesley Ashton

**Collaborators:** Rose Ffrench, Liz Keoshkerian, Westmead Research Laboratories, Sydney Children's Hospital; Claudette Satchell, Kate McGhie, Centre for Immunology, St Vincent's Hospital; Graeme Stewart, Westmead Hospital

### Effects of chemokine co-receptors on HIV disease progression: An international meta-analysis of individual patient data

Findings from several studies examining the effect of chemokine receptor gene polymorphisms on HIV disease progression have yielded inconsistent results.

An international meta-analysis of individuals infected with HIV-1 was conducted on data contributed by 19 groups of investigators. Results showed that both *CCR5-Δ32* and *CCR2b-64I* polymorphisms decrease the risk of progression to AIDS among seroconverters, extend survival, and are associated with lower levels of viral load after seroconversion.

**Investigator:** Lesley Ashton

**Collaborators:** International Cochrane Collaboration; National Institutes of Health, USA

### HIV superinfection study

Whether or not HIV infected individuals can be super-infected by another strain of HIV is unknown.

In the SMASH study, a range of behaviours have been identified among HIV positive men that would impact upon the possibility of super-infection. While many positive men have protected sex all the time, others have unprotected sex with HIV positive partners, exposing themselves to the theoretical possibility of super-infection. Blood specimens and behavioural histories of about 40 HIV positive men from SMASH were collected. Testing for HIV sequence diversity is currently underway to determine whether viral diversity correlates with the number of unprotected sexual partners since becoming HIV positive.

**Investigators:** Andrew Grulich, Garrett Prestage

**Collaborators:** National Centre in HIV Social Research; National Centre in HIV Virology Research

### Transmission of HHV-8

The NCHECR has two ongoing studies of transmission of HHV-8 among gay men and from mother to child.

During 2000, testing of blood specimens was performed using an immunofluorescence assay. In the SMASH study, we found the seroprevalence of the agent was 18% in HIV seronegative men and 30% in HIV seropositive

men. A variety of sexual behaviours were associated with HHV-8 seropositivity. Testing of the mother to child specimens is underway. In late 2000, we obtained an HHV-8 ELISA assay that will enable us to greatly increase our capacity and accuracy in testing specimens for HHV8.

**Investigators:** Andrew Grulich, Garrett Prestage

**Collaborators:** Centre for Immunology Prince of Wales Hospital; National Centre in HIV Social Research; Baragwanath Hospital, Soweto, South Africa

### Estimation of cancer risk prior to AIDS

There has been considerable debate on the best way to calculate cancer risk prior to the development of AIDS in AIDS-cancer linkage studies. Risks of non-AIDS defining cancers in people with HIV prior to AIDS were examined using a cohort based on AIDS diagnosis and a second cohort based on HIV diagnosis.

National population-based registries of AIDS and HIV diagnoses were matched separately with the National Cancer Registry in Australia. These separate analyses gave quantitatively similar estimates of relative risk of cancers both overall and for individual types of cancer. This suggests that the relative risk of non-AIDS defining cancers, prior to AIDS, may be estimated reliably based on cancer experience five years before AIDS diagnosis.

**Investigators:** Yueming Li, Matthew Law, Ann McDonald, Patty Correll, Andrew Grulich

### Non AIDS lymphoma case-control study

This NHMRC funded study is examining risk factors for non-Hodgkin's lymphoma (NHL) in NSW. The investigators are examining ultraviolet radiation and occupational exposures as possible causes of this common cancer. The study is also investigating possible infectious causes, and the role of immune stimulation and immune deficiency. These hypotheses were developed after previous

work in people with AIDS performed at NCHECR. During 2000, more than 300 cases and 300 controls were enrolled, and enrolment is scheduled to be complete in late 2001.

**Investigator:** Andrew Grulich

**Collaborator:** NSW Cancer Council

### Risk of cancer in people with HIV/AIDS

The NCHECR has a long-standing interest in linkage studies that examine rates of cancer in people with AIDS.

In 2000, data from our previous studies of cancer risk in people with AIDS were used in an international collaborative study of cancer risk in people with AIDS. It was coordinated by the Imperial Cancer Research Fund, Oxford, United Kingdom. In addition, the first analysis of national linkage of HIV and cancer data was performed to examine changes in rates of AIDS-defining cancers.

Previous research had suggested that rates of non-Hodgkin's lymphoma had decreased little since the availability of combination, anti-retroviral therapy. Analysis of national data showed convincing evidence of decreasing rates of both non-Hodgkin's lymphoma and Kaposi's sarcoma. While Kaposi's sarcoma rates had decreased markedly, lymphoma had decreased only slightly, and this cancer is now the most common AIDS-associated cancer in Australia.

**Investigators:** Andrew Grulich, Yueming Li, Patty Correll, Matthew Law, Ann McDonald

**Collaborator:** Australian Institute of Health and Welfare

## Mathematical modelling

### HIV modelling and projections

A new mathematical model of the HIV epidemic in homosexual men in Australia was developed and used to assess the competing effects on HIV incidence of decreased infectiousness in men with HIV receiving





effective combination antiretroviral treatments; and in homosexual men engaging in unprotected anal intercourse with increased numbers of partners (levels of unsafe sex).

The models suggested that decreases in infectiousness due to treatment of two-fold, five-fold and ten-fold would be counterbalanced by more modest increases in unsafe sex of around 40%, 60% and 70% respectively. Estimates and projections of the HIV epidemic in Australia, including adjustment of AIDS diagnoses and deaths for reporting delays, adjustment of HIV diagnoses for multiple reporting, and back-projection estimates of HIV incidence and numbers of people living with HIV, were updated and published in the *Annual Surveillance Report 2000*.

**Investigators:** Matthew Law, Yueming Li, Ann McDonald

### Estimates of the number of dependent heroin users in Australia

The number of people in Australia who are dependent heroin users is uncertain.

As part of a wider exercise aimed at improving estimates of dependent heroin user numbers, back-projection models were adapted and applied to reported numbers of opioid overdose deaths in Australia, and entrants to methadone treatment in NSW. These data were then used to estimate the number of people commencing dependent heroin use in Australia between 1960 and 1997. These models, and estimates based on other data sources and statistical methods, suggested that there were approximately 74,000 dependent heroin users in Australia at the end of 1997.

**Investigator:** Matthew Law

**Collaborators:** Michael Lynskey, Joanne Ross, Wayne Hall, National Drug and Alcohol Research Centre

### Variant Creutzfeldt-Jakob disease (vCJD) in Australian blood donors: estimation of risk and the impact of deferral strategies

Australia has instituted a policy of deferring blood donations from donors who have lived in the UK for more than six months between 1980-1996. This is to reduce the risk of transmitting vCJD through the blood supply.

Epidemiological modelling was used to compare the number of donations potentially infected with vCJD that are excluded by the new policy, and the possible increased number of blood donations infected with HIV, hepatitis C or hepatitis B made during a window period as a result of increased donations from first-time donors.

The study showed that the annual number of blood donations made by donors potentially infected with vCJD is 1.15 (range 0.02 to 31.1). Donor deferral was estimated to remove 0.92 (range 0.02 to 25.1) of these donations.

Replacement of 33% of excluded donations, by donations from first time donors, was estimated to result in an increase of: 0.0010 HIV-infected donations, per year, donated during the window period; 0.021 hepatitis C-infected donations per year; and 0.18 hepatitis B-infected donations per year.

**Investigators:** Patricia Correll, Matthew Law

**Collaborator:** Commonwealth Department of Health and Aged Care

### Hepatitis C modelling and projections in New Zealand

The extent of the hepatitis C epidemic in New Zealand was assessed by adapting the NCHECR model previously developed for Australia.

The model suggested that there were 25,000 people in New Zealand living with hepatitis C antibodies, and 1200 living with hepatitis C-related cirrhosis.

**Investigator:** Matthew Law

**Collaborator:** Institute of Environmental Science and Research, New Zealand



## Epidemiological research on health services

### Data from the highly specialised drugs program

As a condition of Commonwealth funding of antiretroviral treatment for people seen in community or day services, State and Territory Health Departments forward summaries of the number of people receiving, and the number of prescriptions for, each antiretroviral drug on a quarterly basis.

In 2000, the total number of people prescribed antiretroviral treatment was approximately 6,000 patients, while just over 1,000 people were prescribed prophylactic treatment. These data form a source of information on trends in antiretroviral use which is complementary to the Australia HIV Observational Database.

**Investigators:** Kathy Petoumenos, Matthew Law

**Collaborator:** Commonwealth Department of Health and Aged Care

### Survey of HIV and hepatitis C antenatal policy and practice

A survey of antenatal testing for HIV and hepatitis C infection was undertaken in collaboration with RANZCOG, in order to guide national policy in this area.

A total of 995 survey questionnaires were sent to a random sample of RANZCOG fellows in general practice, RANZCOG fellows in public antenatal clinics, and RANZCOG "Diplomates" (General Practitioners registered with RANZCOG). Although significant differences were evident between the three groups of obstetric practitioners, HIV and hepatitis C testing practice divided broadly into two groups. Approximately half the practitioners universally offer testing for HIV and hepatitis C, and subsequently test a high proportion of antenatal women attending their clinics. The other half of practitioners offer testing to those considered at higher risk of exposure and those

who request testing, and subsequently test a small proportion of antenatal women.

Overall, during 1999 an estimated 30-40% of antenatal women in Australia were tested for HIV and for hepatitis C. Based on the number of antenatal women with HIV and hepatitis C receiving obstetric care during 1999, the prevalence of HIV was estimated at approximately 1 in 5000 and for hepatitis C at 1%, consistent with estimates from previous seroprevalence surveys.

**Investigators:** Jenean Spencer, Greg Dore

**Collaborator:** The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG)

### Evaluation of the Medically Supervised Injection Centre

In May 1999, the NSW parliament passed legislation to establish a Medically Supervised Injecting Centre (MSIC) in Kings Cross, Sydney. An evaluation committee, including the NCHECR, was established and a preliminary evaluation strategy developed. The evaluation protocol was refined and baseline data collection commenced in 2000.

NCHECR is conducting four components of the evaluation:

#### Community opinion and experience of the MSIC and injecting drug use

Three populations were surveyed in 2000 to establish baseline data for the evaluation. The first was a survey of NSW residents selected using randomly generated phone numbers. The second was a survey of 500 randomly selected local residents, and the third included 200 local businesses with phone numbers randomly selected from the yellow pages. Similar questionnaires were used for each population and the survey will be repeated in 2001.

#### Counting of syringes discarded in Kings Cross

The number of syringes discarded in the street is being recorded for one month, every six months, by researchers at selected sites in the



2011 postcode area and by South Sydney Council in the main streets of Kings Cross. Data on syringes collected by Langton Centre Clean Up Team in Kings Cross on a daily basis are also being analysed.

#### **HIV and hepatitis C infection and injecting behaviour of drug injectors in Kings Cross**

A survey of drug injectors at the two needle and syringe programs in Kings Cross, Kirketon Road Centre and K2, was carried out in October 2000 as part of the national needle and syringe program survey. Additional questions, specifically for the evaluation were included on history of overdose, treatment uptake, and health. The survey will be repeated each year during the evaluation.

#### **Client and staff perception of the MSIC**

Focus groups and anonymous questionnaires will be used to assess client and staff perception of the service.

**Investigator:** Margaret MacDonald

**Collaborators:** AIDS and Infectious Diseases Branch, NSW Health Department  
National Drug and Alcohol Research Centre  
Kirketon Road Centre  
Bureau of Crime Statistics and Research  
School of Health Services Management, UNSW

#### **Needle and syringe program information kit**

An ANCAHRD commissioned review of the evidence for and against needle and syringe programs was released in May 2000. The review was published as an information kit consisting of a brochure with frequently asked questions and answers, and a summary of published literature.

The literature review strongly suggested that needle and syringe programs are effective in reducing transmission of HIV, hepatitis B, and hepatitis C infections among injecting drug users and is consequently a cost-effective public health measure. The information kit was distributed to parliamentarians, local government councillors and officers, health department officers and service providers.

**Investigator:** Margaret MacDonald

**Collaborator:** National Drug and Alcohol Research Centre.

## Therapeutic Research Unit

### Primary HIV infection

#### Completed studies

##### CHRN014

An open-label study to determine the safety and efficacy of combination antiretroviral therapy (AZT + 3TC + IDV) in patients with primary HIV infection.

**Status:** Opened July 1996, initial phase complete, extension phase complete. Results published. Patients now being followed long-term.

**Sites:** 8

**Enrolled/target:** 8/8

**Sponsor:** Merck / NCHECR

**Contact:** Pat Grey, Don Smith

##### CHRN 015

An open-label study to determine the antiretroviral activity and safety of nelfinavir + zidovudine + lamivudine in patients with primary HIV infection.

**Status:** Trial closed July 2000. Patients now being followed long-term. Manuscript submitted.

**Sites:** 8

**Enrolled/target:** 28/24

**Sponsor:** Agouron

**Contact:** Pat Grey, Don Smith

#### Current studies

##### QUEST

An open-label, randomised study of induction therapy with four antiretroviral drugs followed by maintenance therapy with three drugs, then placebo-controlled vaccination phase followed by treatment discontinuation in patients with primary HIV infection.

**Status:** Opened November 1998, enrolment closed November 1999. Amendment submitted December 1999 to add two vaccines to the study, then, discontinue treatment.

**Sites:** 9

**Enrolled:** 31

**Sponsor:** GlaxoSmithKline

**Contact:** Pat Grey, Don Smith

##### PULSE

A randomised trial of combination therapy plus or minus hydroxyurea for primary HIV infection followed by a regimen of treatment interruption based on HIV-RNA load.

**Status:** Open January 2000

**Sites:** 8

**Enrolled/target:** 28/26

**Sponsor:** NCHECR

**Contact:** Pat Grey, Don Smith

#### Studies in preparation

##### AIEDRP – Acute HIV Infection and Early Disease Research Program

An open-label study of the effects of combination antiretroviral therapy with abacavir, efavirenz, indinavir and lamivudine in acute HIV-1 infection with an emphasis on immunological responses.

**Status:** Protocol being finalised for implementation

**Sites:** To be determined

**Target:** 10

**Sponsor:** University of Washington / Division of AIDS, NIH USA / NCHECR

**Contact:** Don Smith

#### Antiretroviral therapy

#### Completed studies

##### CHRN 025

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:** Study completed October 1999. Manuscript accepted for publication

**Sites:** 27

**Enrolled/target:** 75/150

**Sponsor:** NCHECR / Roche / Bristol Myers Squibb / Abbott / Pharmacia & Upjohn

**Contact:** Gillian Hales, Don Smith





### OZCombo I

A randomised comparison of three triple combinations of antiretroviral agents including indinavir in patients who are antiretroviral naive.

**Status:** Study completed, manuscript published

**Sites:** 27 sites in Australia and New Zealand

**Enrolled/target:** 109/120

**Sponsor:** GlaxoSmithKline / Bristol-Myers Squibb / Merck Sharpe and Dohme / NCHECR

**Contact:** Jeff Hudson, Sean Emery

### OZCombo II

A randomised comparison of three triple combinations of antiretroviral agents including nevirapine in patients who are antiretroviral naive.

**Status:** Enrolment closed December 1998, manuscript submitted

**Sites:** Same as OZCombo I

**Enrolled/target:** 73/120

**Sponsor:** GlaxoSmithKline / Bristol-Myers Squibb / Boehringer Ingelheim / NCHECR

**Contact:** Jeff Hudson, Sean Emery

### BI 1036

Long-term follow-up of nevirapine use in patients who participated in randomised trials of nevirapine.

**Status:** Opened 1994, follow-up completed mid 1999

**Sites:** 2

**Enrolled:** 4

**Sponsor:** Boehringer Ingelheim

**Contact:** Pat Grey, Don Smith

### GILEAD (GS98432)

An international, multicentre, open-label study of the safety and efficacy of adefovir dipivoxil in combination therapy for antiretroviral naive patients.

**Status:** Discontinued March 2000 due to discontinuation of adefovir. Manuscript in preparation.

**Sites:** 2

**Enrolled:** 18

**Sponsor:** Gilead

**Contact:** Gillian Hales, Sean Emery

### PIILR

An open-label, multicentre, randomised study of the reversibility of HIV-protease induced lipodystrophy in HIV-1 subjects.

**Status:** Study closed December 1999, follow-up continuing, manuscript submitted

**Sites:** 15

**Enrolled/target:** 79/80

**Sponsor:** GlaxoSmithKline / Boehringer Ingelheim / Gilead Sciences / NCHECR

**Contact:** Jeff Hudson, Don Smith

### HIV-NAT 001.1 (extension)

A randomised, open-label, follow-up study to protocol HIV-NAT 001 to explore the antiretroviral efficacy and tolerability of switching to therapy with d4T/ddI/saquinavir soft gel capsules versus Combivir (AZT/3TC)/saquinavir soft gel capsules (with or without the addition of itraconazole) in an HIV-infected Thai population.

**Status:** Enrolment completed September 1999, manuscript in preparation

**Sites:** 1

**Enrolled/target:** 88/88

**Sponsor:** Roche (Thailand) Ltd / Roche Diagnostics / Molecular Systems / Bristol-Myers Squibb (Thailand) Ltd / GlaxoSmithKline R & D / Janssen Pharmaceuticals

**Contact:** Chris Duncombe, Sean Emery

### Current studies

#### Mitox

A randomised comparative study of continuing therapy versus replacement at thymidine analogue with guanosine analogue in patients with lipodystrophy.

**Status:** Open April 2000, completed December 2000.

**Sites:** 16

**Enrolled/Target:** 111/100

**Sponsor:** GlaxoSmithKline / NCHECR

**Contact:** Jeff Hudson, Don Smith

### PIILR extension

Effect of stavudine substitution on lipodystrophy in PIILR participants.

**Status:** Recruitment completed, study ongoing

**Sites:** 3

**Enrolled:** 19

**Sponsor:** GlaxoSmithKline / Boehringer Ingelheim / Gilead Sciences / NCHCR

**Contact:** Jeff Hudson, Don Smith

### INITIO

A randomised trial to evaluate different therapeutic strategies of combination therapy for HIV infection.

**Status:** Open 1999, recruitment to continue till 31<sup>st</sup> September, 2001

**Sites:** 27 (25 in Australia and 2 in New Zealand)

**Enrolled:** 108

**Sponsor:** MRC-HIV Connect / NCHCR

**Contact:** Dianne Carey, Ainslee Moore

### CREST

A randomised, multi-centre study to assess and compare genotypic and virtual phenotypic resistance testing in HIV-1 infected individuals with an HIV RNA viral load >1500 copies/ml in whom a change in current antiretroviral therapy is indicated.

**Status:** Open October 2000

**Sites:** 50

**Enrolled/target:** 150/300

**Sponsors:** Virco / Roche / Boehringer Ingelheim / GlaxoSmithKline / Abbott / Bristol-Myers Squibb / Merck Sharpe and Dohme / Perkin-Elmer Biosystems / Australian Technology

**Contact:** Gillian Hales, Sean Emery

### HIV-NAT 004 (extension)

A randomised, open-label, Phase II study of subcutaneous interleukin-2 (Proleukin®), plus antiretroviral therapy (ART) versus ART alone in patients with HIV infection and CD4+ lymphocyte count greater than 350 cells/mm<sup>3</sup>.

**Status:** Open November 1998, ongoing

**Sites:** 2

**Enrolled/target:** 71/71

**Sponsor:** National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MA, USA / Division of AIDS, CDC / Ministry of Public Health, Thailand  
**Contact:** Chris Duncombe, Mark Boyd, Sean Emery

### HIV-NAT 001.3

An open-label, follow-up, comparative 48 week cohort study to evaluate the efficacy, safety, pharmacokinetics and tolerability of saquinavir-SGC 1600 mg OD/ritonavir, 100 mg OD plus dual nucleosides in patients with an undetectable viral load (less than 50 copies/ml); and saquinavir SGC 1400 mg BID plus dual nucleoside in patients with a detectable viral load (greater than 50 copies/ml).

**Status:** Open April 2000, ongoing

**Sites:** 1

**Enrolled/target:** 87/87

**Sponsor:** Roche (Thailand) Ltd / Roche Diagnostics / Molecular Systems / Bristol-Myers Squibb (Thailand) Ltd / GlaxoSmithKline R & D / Janssen Pharmaceuticals

**Contact:** Chris Duncombe, Mark Boyd, Sean Emery

### HIV-NAT 002.1 and 002.2

A randomised, open-label study to explore the antiretroviral efficacy and tolerability of immediate versus deferred switching from ddI/d4T to AZT/3TC in a Thai HIV-1 infected population, pretreated with ddI/d4T

**Status:** Open November 1997, follow-up protocol ongoing

**Sites:** 1

**Enrolled/target:** 70/70

**Sponsor:** Bristol-Myers Squibb, Thailand / GlaxoSmithKline / R & D Division of AIDS, CDC / Ministry of Public Health, Thailand

**Contact:** Chris Duncombe, Mark Boyd, Sean Emery





### HIV-NAT 003.2

An open-label, follow-up study to protocol HIV-NAT 003.1 to explore the durability of the antiretroviral efficacy and tolerability of AZT/3TC and d4T/ddI in a population originally treated with AZT/3TC; and of AZT/3TC/ddI and d4T/3TC/ABC in a population originally treated with AZT/3TC/ddI. The study also explores the efficacy of adding hydroxyurea to the last regimen failed or d4T/3TC/ddI/HU as a salvage regimen.

**Status:** Open June 1999, follow-up protocol ongoing

**Sites:** 2

**Enrolled/target:** 93/93

**Sponsor:** GlaxoSmithKline R&D, GlaxoSmithKline (Thailand) Ltd, Bristol-Myers Squibb (Thailand) Ltd

**Contact:** Chris Duncombe, Mark Boyd, Sean Emery

### HIV-NAT 005

A randomised, open-label, comparative study to evaluate the efficacy and tolerability of indinavir/low dose ritonavir BID versus indinavir TID as part of combination antiretroviral therapy with Combivir<sup>®</sup> (AZT+3TC) for the treatment of HIV-1 infection in an antiretroviral, pretreated Thai study population.

**Status:** Open June 1999, ongoing

**Sites:** 1

**Enrolled/target:** 100/100

**Sponsor:** MSD (Thailand) / GlaxoSmithKline R&D

**Contact:** Mark Boyd, Sean Emery

### HIV-NAT 007

A study of the safety, tolerability and pharmacokinetics of nelfinavir co-administered with stavudine (d4T) and didanosine (ddI) in HIV-exposed infants

**Status:** Open July 1999. Pharmacokinetics study complete. Cohort continues to be followed

**Sites:** 1

**Enrolled/target:** 36/36

**Sponsor:** Roche (Thailand Ltd)

**Contact:** Chris Duncombe, Sean Emery

### 2NN

An open-label, comparative study to evaluate the antiviral efficacy of nevirapine and efavirenz in combination with d4T and 3TC.

**Status:** Open February 2000, enrolment ongoing

**Sites:** 18 sites worldwide

**Target:** 170/200 at HIV-NAT

**Sponsor:** Boehringer Ingelheim

**Contact:** Chris Duncombe, Mark Boyd, Sean Emery

### ACTT 002

A randomised, open-label, comparative study to evaluate the efficacy of full dose versus half dose of stavudine (d4T) compared to zidovudine (AZT), in combination with didanosine (ddI), in a treatment-naïve HIV-1 infected patients with CD4+ cell count 100-500/ mm<sup>3</sup>.

**Status:** Open April 2000, ongoing

**Sites:** 15 in Thailand

**Target:** 260/330

**Sponsor:** Ministry of Public Health, Thailand / Bristol-Myers Squibb (Thailand)

**Contact:** Chris Duncombe, Sean Emery

### AI-424-008

Evaluation of the safety and antiviral efficacy of a novel HIV-1 protease inhibitor, BM232632, in combination with d4T and 3TC as compared to a reference combination regimen.

**Status:** Open April 2000, ongoing

**Sites:** 54

**Enrolled/target:** 31/31

**Sponsor:** Bristol-Myers Squibb

**Contact:** Chris Duncombe, Sean Emery

### AI-455-099

Evaluation of the safety and antiviral efficacy of stavudine extended release formulation as compared to stavudine immediate release formulation, each as part of a potent antiretroviral combination therapy.

**Status:** Open October 2000, ongoing

**Sites:** 54 worldwide

**Enrolled/target:** 15/35

**Sponsor:** Bristol-Myers Squibb

**Contact:** Chris Duncombe, Sean Emery

## E-1696

A multi-centre, double-blind, randomised trial to compare the effects of nandrolone decanoate and placebo on body composition and bodyweight in HIV-positive men with mild to moderate wasting, with Sustanon 250 as active reference treatment.

**Status:** Open April 2000 ongoing

**Sites:** 2 in Thailand

**Target:** 18/24 at HIV-NAT

**Sponsor:** NV Organon

**Contact:** Chris Duncombe, Sean Emery

## Studies in preparation

### No-Nuc Study

An open-label study looking at whether antiretroviral combinations without nucleoside reverse transcriptase inhibitors are able to reduce lipodystrophy whilst still maintaining control of virus replication.

**Status:** In development

**Sites:** 15 – 20 through the network

**Enrolled/target:** 100 patients

**Sponsor:** In negotiation

**Contact:** Fraser Drummond

### Kaletra Induction/Maintenance Study

An open-labelled, prospective study to determine if HIV suppression can be maintained with a monotherapy, protease inhibitor regimen of Lopinavir/r following an induction phase of Combivir (AZT+3TC) + Lopinavir/r therapy in antiretroviral naive HIV positive patients.

**Status:** In development

**Sites:** 25 through the network

**Enrolled/target:** 240

**Sponsor:** In negotiation

**Contact:** Fraser Drummond

### SMART Study

A large, simple, trial comparing two strategies for management of anti-retroviral therapy: this study is looking at HIV control by randomising patients to receive antiretrovirals to either maintain an undetectable viral load or maintain an acceptable CD4 count.

**Status:** In development

**Sites:** 25 through the network

**Enrolled/target:** To be determined in Australia, 6000 internationally

**Sponsor:** NIH

**Contact:** Fraser Drummond

### OPTIMA Study

A Tri-national (Canada, UK, USA) randomised, controlled trial to determine the optimal management of patients with HIV infection for whom first and second-line highly active anti-retroviral therapy has failed.

**Status:** In development

**Sites:** 25 through the network

**Enrolled/target:** 50 in Australia, 1300 internationally

**Sponsor:** In negotiation

**Contact:** Fraser Drummond

## Lipodystrophy studies

### Completed studies

#### GEMFIBROZIL

A randomised study of gemfibrozil for the treatment of HIV-protease inhibitor associated hypertriglyceridaemia.

**Status:** Open March 99, recruitment completed December 1999. Manuscript in preparation

**Sites:** St. Vincent's Hospital

**Target:** 40

**Sponsor:** Abbott / NCHECR

**Contact:** John Miller

#### National Lipodystrophy Survey

A national, prevalence survey of lipodystrophic phenomena in patients with HIV.

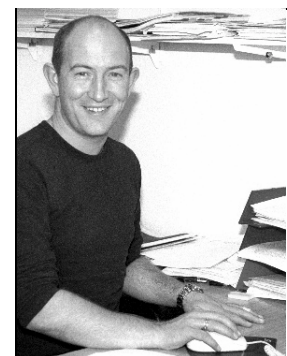
**Status:** Recruitment complete, November 1999. Manuscript in preparation

**Sites:** 14

**Enrolled:** 1348

**Sponsor:** Roche / Abbott / Bristol-Myers Squibb / NCHECR

**Contact:** John Miller





## Current studies

### Lipodystrophy and related diseases case definition study

Changes in body shape and metabolism have recently become apparent in patients treated for HIV infection. Fat loss from the face, limbs and buttocks, and fat gain in the abdomen, base of the neck and breasts have been shown in both sexes. Increased fats in the blood and decreased insulin activity may be seen, sometimes with type-2 diabetes.

A case definition for the "lipodystrophy syndrome(s)" is yet to be validated and it is possible that a combination of clinical and metabolic features might be necessary to define the syndrome(s).

This study aims to develop diagnostic criteria for HIV-associated LD syndrome(s) that will assist clinicians in confirming/excluding a diagnosis of lipodystrophy syndrome(s) and identify possible risk factors involved.

**Status:** Open September 2000, due for completion May 2001

**Sites:** 35

**Enrolled/target:** 400/800

**Sponsor:** EMEA

**Contact:** Rebekah Puls

## Immune based therapies

### Completed studies

#### Vanguard Thailand (HIV-NAT 004)

A randomised, open-label, Phase II study of subcutaneous interleukin-2 (Proleukin) plus antiretroviral therapy versus antiretroviral therapy alone in Thai patients with HIV infection and greater than 350 CD4+ cells/mm<sup>3</sup>.

**Status:** Complete, study published

**Sites:** 2

**Enrolled/target:** 72/72

**Sponsor:** Division of AIDS, NIH USA / Thai Ministry of Public Health / NCHCECR

**Contact:** Sean Emery

### Vanguard UK

A randomised, open-label, Phase II study of subcutaneous interleukin-2 (Proleukin) versus no therapy in patients with HIV infection and greater than 350 CD4+ cells/mm<sup>3</sup> who do not wish to commence antiretroviral therapy.

**Status:** Enrolment complete, manuscript submitted

**Sites:** 3 (all UK)

**Enrolled/target:** 36/36

**Sponsor:** Division of AIDS, NIH USA / NCHCECR / MRC UK

**Contact:** Sean Emery

## Current studies

### SILCAAT

A Phase III, multicentre, randomised study of the biological and clinical efficacy of subcutaneous recombinant, human interleukin-2 in HIV-infected patients with low CD4+ counts receiving active antiretroviral therapy.

**Status:** Open April 2000

**Sites:** 12

**Enrolled/target:** 76/200

**Sponsor:** Chiron Therapeutics / NCHCECR

**Contact:** Sean Emery, Sarah Pett

### ESPRIT

A randomised, open-label, Phase III, international study of subcutaneous recombinant interleukin-2 in patients with HIV infection and CD4 lymphocyte count greater than or equal to 300 cells/mm<sup>3</sup>.

**Status:** Open December 2000

**Sites:** 48 (25 in Australia; other sites in Argentina, Israel, Japan, Singapore and Thailand)

**Enrolled/target:** 228/750 (40/135 in Australia)

**Sponsor:** National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, MA, USA / Division of AIDS, CDC / The Government Pharmaceutical Organisation / Ministry of Public Health, Thailand / GlaxoSmithKline (Thailand) / Bristol-Myers Squibb (Thailand)

**Contact:** Sean Emery, Sarah Pett, Fraser Drummond, Chris Duncombe



### Avipox vaccine study

A multicentre, double-blind, placebo-controlled, randomised evaluation of safety and immunogenicity of an avipox vector (rFPV) containing HIV genomic material (gag-pol) with or without co-expression of an immunoenhancing cytokine gene (interferon-gamma).

**Status:** Recruitment commencing first quarter of 2001

**Sites:** 11

**Enrolled/target:** 0/36

**Sponsor:** Virax Holdings / CTARC

**Contact:** Alexander Aichelburg, Sean Emery

### HRG 214 study

A Phase I trial of the pharmacokinetics and safety of the Caprine antibody <sup>PE</sup>HRG214 in persons living with HIV.

**Status:** Pending

**Sites:** 1

**Enrolled/target:** 15-18

**Sponsor:** Probe Pharmaceuticals Pty Ltd

**Contact:** Sarah Pett

## Opportunistic infections, AIDS-related malignancies

### Completed studies

#### Thai TB study

Prevention of tuberculosis by isoniazid, or isoniazid plus rifampicin, in asymptomatic or early symptomatic HIV seropositive patients in Thailand – a randomised controlled trial.

**Status:** Complete, manuscript in preparation

**Sites:** 1

**Enrolled/target:** 600/600

**Sponsor:** NCHECR / WHO / UNAIDS

**Contact:** Kate Clezy

#### ADHOC

A randomised, controlled study of the safety and efficacy of adefovir dipivoxil in patients with advanced HIV infection.

**Status:** Opened September 1997, closed, manuscript in preparation

**Sites:** 30

**Enrolled/target:** 82/350

**Sponsor:** NCHECR / HIV Connect / Gilead Sciences

**Contact:** Kate Clezy, Jeff Hudson

### Current studies

#### IM862

A Phase III, randomised study of IM862 versus placebo in the treatment of AIDS-related Kaposi's sarcoma.

**Status:** Open

**Sites:** 4

**Enrolled/target:** 10/40

**Sponsor:** UNSW / Cytran

**Contact:** Kate Clezy

#### CHOP

An open study of CHOP chemotherapy with, or without rituximab, for the initial treatment for HIV-related NHL.

**Status:** Pending

**Sites:** 3

**Target:** 5

**Sponsor:** UNSW / Roche

**Contact:** Kate Clezy



## Centre staff



### Director

David A Cooper DSc, MD, FRACP, FRCPA,  
FRCP

### Deputy Director

John M Kaldor PhD

### Epidemiology Unit

#### Head

John M Kaldor PhD

#### Senior Lecturer

Andrew Grulich MB BS, MSc, PhD, DRACOG,  
FAFPHM

#### Lecturers

Greg Dore MB BS, BSc, FRACP, MPH  
Lesley Ashton BA(Hons), MPH, PhD (from  
December)

#### Senior Research Associate

Garrett Prestage BA(Hons)

#### Statisticians

Matthew Law MA, MSc, PhD  
Janaki Amin BSc(Hons), MPH(Hons) (from  
August)  
Yueming Li BSc, MAppStat  
Kathy Petoumenos BSc, MA

#### Senior Research Assistants

Lesley Ashton BA(Hons), MPH, PhD (to  
December)  
Margaret MacDonald RN, BSocSci,  
GradDipEpidemiol

#### Coordinator, National HIV/AIDS Surveillance

Ann McDonald BSc, MPH

#### Research Assistant

Olympia Hendry BA, GradDip(Counselling)

#### Unit Coordinator

Jennifer Kemp

#### Administrative Assistant

Matthew Calvert

### Clerk

Melanie Middleton BMedSci

### Therapeutic Research Unit

#### Head

Sean Emery BSc(Hons), PhD

#### Head, Hospital Network

Kate Clezy MB BS, FRACP

#### Director, Community HIV Research Network

Don Smith MB ChB, MD

#### Project Team Leaders

Dianne Carey BPharm, MPH  
Fraser Drummond MB ChB, MRCA, DA(UK)  
Sarah Pett BSc(Hons), MB BS(Hons), DTM&H,  
MRCP(UK)  
Alexander Aichelburg MD  
Gilbert Kaufmann MD  
Chris Duncombe MB BS (HIV-NAT)  
Mark Boyd MB BS, BA (HIV-NAT)

#### Visiting Research Fellow

John Miller RN, MN(Clin) (to August)

#### Clinical Project Coordinators

Ainslee Moore RN, BA(Nurs) (from April)  
Fiona Horn RN, BSc, MPH  
Gillian Hales RN, BSc(Hons)  
Jeff Hudson RN, GradDip(Health Science)  
Pat Grey RN, BA, DipAppSci, DipCounselling  
Rebekah Puls BSc(Hons), PhD (from April)

#### Research Coordinators

Jenni Mitchell RN (Pahran Market Clinic,  
Melbourne – until July)  
Julie Patching RN (The Alfred Hospital,  
Melbourne – from April)  
Helen Wood RN (The Alfred Hospital,  
Melbourne – from November)

#### Data Entry Clerks

Wendy Lee  
Robyn Munro

### Administrative Assistants

Robyn Tompkins  
Morgan Stewart RN, BA(Hons)  
Adrienne Broe BA

### Clerks

Susan Lewis MA  
Jo Groves BA

### Other research staff

#### Research Assistants

Louise Pemberton BSc(Hons)  
Danielle Smith BSc(Hons)  
Mee Ling Munier BSc, GradDipEpi, MSc

#### Honorary Visiting Fellows

Bruce Brew MB BS, MD, FRACP  
A/Prof, Dept Neurology and HIV Medicine  
St Vincent's Hospital, Sydney

Nick Crofts MB BS, MPH, FAFPHM  
Deputy Director and Head  
Epidemiology and Social Research Unit  
Macfarlane Burnet Centre for Medical  
Research, Melbourne

Alex Wodak MB BS, MRACP, FRACP, MRCP,  
FAFPHM  
Senior Staff Specialist and Director  
Alcohol and Drug Service  
St Vincent's Hospital, Sydney

### Finance and Administration

#### Manager

Bronwen Turner BA

#### Business Manager

Annie Tung MPA (from September)

#### Librarian

Coralie Kronenberg BA, DipMLib, AALIA

#### Computer Systems Officers

Charles Tran BCompSci  
Mary Larkin BA (to February)  
Regina Linich (from March)

#### Executive Assistant

Janette Button

### Administrative Officer

Margaret Micallef BSocSci (to June)

### Administrative Assistants

Ian Brodie BEc, GradDipEd, AssDipHlthSc  
(from July)  
Merideth Hatton BA (from September)  
Alison Leckie (to March)  
Tracie Mohr BEc (to March)  
Renaë Myhill BMedSci (from March)  
Yvette Toole  
Philippa Wong BEc (from June)

### Receptionist

John Redmond



## *Collaborating organisations*

### **National**

Australasian Society for HIV Medicine, Sydney  
 Australian Defence Force, Canberra  
 Australian Federation of AIDS Organisations, Sydney  
 Australian Hepatitis Council, Sydney  
 Australian Infection Control Association, Hobart  
 Australian Institute of Health and Welfare, Canberra  
 Australian IV League, Sydney  
 Australasian Liver Association, Sydney  
 Australian Medical Association, Sydney  
 Australian National Council on AIDS, Hepatitis and Related Diseases, Canberra  
 Australian Nursing Federation, Canberra  
 Australian Paediatric Surveillance Unit, and its contributors, Sydney  
 Australian Red Cross Blood Service, Sydney  
 Australian Research Centre in Sex, Health and Society, La Trobe University, Melbourne  
 Commonwealth Department of Health and Aged Care, Canberra  
 Communicable Diseases Network Australia and New Zealand, Canberra  
 Haemophilia Foundation, Sydney  
 Intergovernmental Committee on AIDS and Related Diseases, Canberra  
 National Association of People Living with HIV/AIDS, Sydney  
 National Centre in HIV Social Research, Sydney  
 National Centre in HIV Virology Research, Melbourne  
 National Drug Research Centre, Perth  
 National Drug and Alcohol Research Centre, UNSW, Sydney  
 National Serology Reference Laboratory, Melbourne  
 Royal Australian & New Zealand College of Obstetricians & Gynaecologists, Sydney  
 Royal Australian College of General Practitioners, Sydney

### **Australian Capital Territory**

ACT Corrective Services, Canberra  
 ACT IV League, Canberra  
 AIDS Action Committee of the ACT, Canberra

Australian National University, Canberra  
 Calvary Hospital, Canberra  
 Canberra Sexual Health Clinic, Canberra  
 Communicable Disease Control Program, ACT Department of Health and Aged Care, Canberra  
 Drug Referral Information Centre, Canberra  
 Interchange General Practice, Canberra  
 John James Memorial Hospital, Canberra  
 Microbiology Department, Canberra Hospital  
 The Canberra Hospital

### **New South Wales**

Area Public Health Units, NSW Health Department  
 AIDS Council of NSW (ACON), Sydney  
 Albion Street Centre, Sydney  
 Ballina Hospital  
 Bankstown/Lidcombe Hospital, Sydney  
 Bathurst Hospital  
 Blacktown Hospital, Sydney  
 Bloomfield Hospital, Sydney  
 Blue Mountains Sexual Health Clinic  
 Bigge Park Medical Centre, Sydney  
 Blacktown and Parramatta Centres (Western Sydney AIDS Prevention Services), Sydney  
 Bligh Street Clinic, Tamworth  
 Byron Bay Hospital  
 Calvary Hospital, Wagga Wagga  
 Campbell Hospital, Sydney  
 Campbelltown Hospital, Sydney  
 Casino and District Hospital  
 Centre for Immunology, St Vincent's Hospital, Sydney  
 Coffs Harbour Hospital  
 Communicable Disease Surveillance & Control Unit, NSW Health, Sydney  
 Concord Hospital, Sydney  
 Corrections Health Service, Sydney  
 Drug Intervention Services, Sydney  
 Eastern Sydney Division of General Practice, Sydney  
 General Medical Practice, Burwood, Sydney  
 General Medical Practice, Strathfield, Sydney  
 General Medical Practice, Lismore  
 General Medical Practice, Coffs Harbour  
 General Medical Practice, Newtown, Sydney

General Medical Practice, Darlinghurst, Sydney  
 Goulburn Base Hospital  
 Gosford Sexual Health Clinic  
 Ground Zero Medical Centre, Sydney  
 HIV Service, Sydney Children's Hospital  
 Holdsworth House General Practice, Sydney  
 Immunology & Microbiology Department, The University of Newcastle  
 John Hunter Hospital, Newcastle  
 Kirketon Road Centre, Sydney  
 Leichhardt Family Medical Practice, Sydney  
 Lismore Base Hospital  
 Livingstone Road Sexual Health Centre, Sydney  
 Liverpool Hospital, Sydney  
 Mount Druitt Hospital, Sydney  
 Multicultural HIV/AIDS Service, Sydney  
 Murwillumbah Hospital  
 Neisseria Reference Laboratory, Prince of Wales Hospital, Sydney  
 NSW Cancer Council, Sydney  
 Northern Rivers Health Services  
 Nowra Hospital  
 Parramatta Sexual Health Clinic, Parramatta Health Service, Westmead Hospital, Sydney  
 People Living with HIV/AIDS (PLWHA), Sydney  
 Prince Henry/Prince of Wales Hospitals, Sydney  
 RACGP NSW Branch, Sydney  
 Resource and Education Program for IDU (Redfern and Canterbury), Sydney  
 Royal Hospital for Women, Sydney  
 Royal North Shore Hospital, Sydney  
 Royal Prince Alfred Hospital, Sydney  
 Sexual Health Clinic, Nepean Hospital  
 Sexual Health Clinic, Port Kembla Hospital  
 Sexual Health Clinic, Shoalhaven District Hospital  
 Sexual Health Clinic, St George Hospital, Sydney  
 Sexual Health Service, Royal Newcastle Hospital  
 SHAIDS, Lismore  
 St George Hospital, Sydney  
 St George Needle Exchange, Sydney  
 St Leonards Medical Centre, Sydney  
 St Luke's Private Hospital, Sydney  
 St Vincent's Hospital, Sydney

St Vincent's Hospital, Lismore  
 Strathfield Private Hospital, Sydney  
 Sydney Children's Hospital  
 Sydney Sexual Health Centre, Sydney  
 Taylor Square Private Clinic, Sydney  
 The Exchange Services, Manly and Ryde, Sydney  
 Wentworth HIV and Sexual Health Service, Sydney  
 Western Sydney AIDS Prevention Service, Auburn, Blacktown and Parramatta, Sydney  
 Westmead Hospital, Sydney  
 407 Doctors, Sydney

### **Northern Territory**

AIDS Council of Central Australia, Darwin  
 AIDS/STD Unit, Communicable Diseases Centre, Royal Darwin Hospital  
 Clinic 34, Royal Darwin Hospital  
 Department of Correctional Services, Darwin  
 Nganampa Health Council, Alice Springs  
 Northern Territory AIDS Council, Darwin  
 Royal Darwin Hospital  
 Territory Health Services, Casuarina  
 Territory Health Services, Alice Springs

### **Queensland**

AIDS Medical Unit, Queensland Health, Brisbane  
 Biala and QuIVAA Needle and Syringe Programs, Brisbane  
 Blackall Terrace Specialist Centre, Nambour  
 Brisbane Sexual Health Clinic,  
 Brunswick Street Medical Centre, Brisbane  
 Cairns Base Hospital  
 GAIN Needle and Syringe Program, Gold Coast  
 Gladstone Road Medical Centre, Brisbane  
 Gold Coast Hospital, Southport  
 Gold Coast Sexual Health Clinic, Miami  
 Holy Spirit Hospital, Brisbane  
 Ipswich Hospital  
 Kobi House, Toowoomba Base Hospital  
 Logan Hospital, Brisbane  
 Mater Misericordiae Public, Brisbane  
 Mt Isa Hospital  
 Nambour General Hospital





Prince Charles Hospital, Brisbane  
 Princess Alexandra Hospital, Woolloongabba  
 Queensland Corrective Services Commission,  
 Brisbane  
 Queensland AIDS Council (QAC), Brisbane  
 Queensland Positive People, Brisbane  
 Special Health Services, Cairns  
 Sunshine Coast Intravenous AIDS Association  
 (SCIVAA)  
 St Andrew's Hospital, Toowoomba  
 The Sexual Health Program, Cairns  
 Townsville General Hospital

### **South Australia**

AIDS Council of South Australia, Adelaide  
 Christies Beach National Pharmacy, Adelaide  
 Clinic 275, Adelaide  
 Clovelly Park NSP, Adelaide  
 Drug and Alcohol Services Council, Adelaide  
 Flinders Clinical Trials Pharmacy, Adelaide  
 Flinders Medical Centre, Adelaide  
 Infectious Diseases Laboratories, Institute of  
 Medical and Veterinary Science, Adelaide  
 Lyell McEwin Health Service, Adelaide  
 Midnight Pharmacy, Adelaide  
 Morphett Vale Pharmacy  
 Noarlunga Community Health Service  
 Northern Metropolitan Community Health  
 Service, Adelaide  
 Parks Community Centre, Adelaide  
 Royal Adelaide Hospital  
 SAVIVE, Adelaide  
 South Australian Drug and Alcohol Services  
 Council, Adelaide  
 South Australian Forensic Health Service,  
 Adelaide  
 South Australian Health Commission, Adelaide  
 South Road Pharmacy, Adelaide  
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 The Care & Prevention Program, Adelaide  
 Threadgolds Pharmacy, Adelaide  
 Warrinalla Clinic  
 William Jeffs Pharmacy, Adelaide  
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 Corrective Services Division, Hobart  
 General Medical Practice, Collins Street,  
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 Public and Environmental Health, Department  
 of Community and Health Services, Hobart  
 Launceston General Hospital  
 Royal Hobart Hospital  
 Tasmanian AIDS Council, Hobart  
 Tasmanian Users Health Support League,  
 Hobart

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Ballarat Community Health Services  
 Beechworth Hospital  
 Beleura Private Hospital  
 Box Hill Hospital, Melbourne  
 Cabrini Hospital, Melbourne  
 Coorong Hospital  
 Dandenong Hospital, Melbourne  
 Department of Human Services, Melbourne  
 Epworth Private Hospital  
 Freemasons Hospital, Melbourne  
 Gay Men's Health Centre, Melbourne  
 Geelong Community Health Services  
 Immunology & Microbiology Department, The  
 University of Melbourne  
 Kerang Hospital  
 Kyabram Hospital  
 Macfarlane Burnet Centre for Medical  
 Research, Melbourne  
 Mansfield District Hospital  
 Melbourne Diagnostic Unit, University of  
 Melbourne  
 Melbourne Inner Needle Exchange  
 Melbourne Sexual Health Centre  
 Middle Park Clinic, Melbourne  
 Mildura Base Hospital  
 Monash Medical Centre, Melbourne  
 Mornington Peninsula Hospital  
 Mount Alexander Hospital  
 Mount Alvernia, Bendigo  
 Northcote Clinic, Melbourne  
 People Living with HIV/AIDS (PLWHA),  
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Positive Living Centre, Melbourne  
 Prahran Market Clinic, Melbourne  
 Royal Children's Hospital, Melbourne  
 Royal Melbourne Hospital  
 SHARPS, Frankston  
 St John of God Hospital, Ballarat  
 St Kilda Needle and Syringe Program  
 St Vincent's Hospital, Melbourne  
 The Alfred Hospital, Melbourne  
 The Carlton Clinic, Melbourne  
 The Centre Clinic, Melbourne  
 Turning Point, Melbourne  
 Upper Murray Hospital  
 Victorian AIDS Council/Gay Men's Health  
 Centre (VAC), Melbourne  
 Victorian Infectious Diseases Reference  
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 West Gippsland Hospitals  
 Western Region AIDS and Hepatitis Prevention  
 Wimmera Base Hospital  
 Wodonga District Hospitals

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 Chelsea and Westminster Hospital, London,  
 UK  
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 Thailand  
 Chonburi Regional Hospital, Chonburi,  
 Thailand  
 Christchurch Hospital, New Zealand  
 Chulalongkorn University Hospital, Bangkok,  
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 Community Research Initiative, New England,  
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 Harlem Hospital Centre, New York, USA  
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 Collaborative (HIV-NAT), Bangkok, Thailand  
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 Hospital de Enfermedades Infecciosas FJ  
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 Hospital General de Agudos Juan A Fernandez,  
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 Hospital Interzonal de Agudos San Juan de Dios, La Plata, Argentina  
 Hospital Interzonal General de Agudos Oscar Alende, Mar del Plata, Argentina  
 Hospital Italiano de Buenos Aires, Argentina  
 Hospital JM Ramos Mejia, Buenos Aires, Argentina  
 Hospital Universitario Clementino, Rio de Janeiro, Brazil  
 Hopital Gui de Chauiac, Montpellier, France  
 Hopital Haut-Leveque, Bordeaux, France  
 Hopital Rothschild, Paris, France  
 Hopital Necker, Paris, France  
 Hvidovre Hospital, Copenhagen, Denmark  
 Immune Deficiency Treatment Centre, Montreal General Hospital, Canada  
 Infectologia Hospital Porf, Alejandro Posadas, Haedo, Argentina  
 Imperial Cancer Research Fund, Oxford, UK  
 International AIDS Society, Stockholm, Sweden  
 International AIDS Therapy Evaluation Centre, Amsterdam, The Netherlands  
 Institute of Environmental Science & Research Ltd. Wellington, New Zealand  
 Istituto Superiore di Sanita, Rome, Italy  
 J W Goethe Universitat, Frankfurt, Germany  
 Kaplan Medical Centre, Rehovot, Israel  
 Khon Kaen University, Srinagarind Hospital, Khon Kaen, Thailand  
 Miriam Hospital, Providence, USA  
 National Cancer Institute, USA  
 National AIDS Therapy Evaluation Centre, Amsterdam, The Netherlands  
 NHLBI, National Institute of Health, Bethesda, USA  
 Northwestern Uni Medical School, Chicago, USA  
 Osaka National Hospital, Osaka, Japan  
 Rambam Medical Centre, Haifa, Israel  
 Royal Free Hospital, London, UK  
 Royal Sussex County Hospital, Sussex UK  
 San Francisco General Hospital, San Francisco, USA  
 Siriraj Hospital, Bangkok, Thailand  
 South Hospital, Stockholm, Sweden  
 Tan Tock Seng Hospital, Singapore  
 Tel Aviv Sourasky Medical Centre, Tel Aviv, Israel

Terry Beirn Community Programs for Clinical Research in AIDS (CPCRA), Washington, USA  
 Thai Red Cross, Chulalongkorn University Hospital, Thailand  
 The Chaim Sheba Medical Centre, Ramat Gan, Israel  
 Toronto Hospital, Toronto, Canada  
 UNAIDS, Geneva, Switzerland  
 University of Minnesota, Minneapolis, USA  
 University of Munich, Munich, Germany  
 University of Tokyo Institute of Medical Science, Tokyo, Japan  
 University of Washington, Seattle, USA  
 Waikato Hospital, Waikato, New Zealand  
 Washington University School of Medicine, St Louis, USA  
 Wellington Hospital, Wellington, New Zealand  
 WHO Western Pacific Regional Office, Manila, Philippines

### Commercial Organisations

Abbott  
 Agouron  
 Ansell Australia  
 Australian Technology  
 Becton Dickinson  
 Boehringer Ingelheim  
 Bristol-Myers Squibb  
 Chiron Therapeutics  
 Dupont Pharmaceuticals Company  
 Gilead Sciences  
 GlaxoSmithKline  
 ICON  
 Merck Research Laboratories  
 Merck Sharpe and Dohme  
 Perkin-Elmer  
 Probe Pharmaceuticals  
 Quintiles  
 Roche Diagnostics  
 Roche Products  
 Swiss Re Life and Health  
 Virax Immunotherapeutics  
 Virco  
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## Membership of external boards and committees

### David Cooper

#### Editorial Boards

##### Editorial Board, Journal of Acquired Immune Deficiency Syndromes

Raven Press, USA  
Board member, 1988-

##### Honorary Editorial Advisory Board, Venereology

The Australian College of Venereologist Incorporated  
Board member, 1991-

##### Editorial Board, Antiviral Therapy

MTM Publications  
Board member, 1996-2000

##### Editorial Board, Sexually Transmitted Infections

British Medical Association, UK  
Board member, 1998-

##### Editorial Board, AIDS

AIS International AIDS Society, USA  
Board member, 2001-2003

#### Government Advisory Bodies

##### National Serology Reference Laboratory Scientific Advisory Committee

National Serology Reference Laboratory  
Committee member, 1998-

##### International Congress on Drug Therapy in HIV Infection Scientific Committee

International Congress on Drug Therapy in HIV Infection, Scotland  
Committee member, 1992, 1994, 1996, 1998, 2000

##### Program Committee, Interscience Conference on Antimicrobial Agents and Chemotherapy

American Society for Microbiology, USA  
Committee member, 1997-2000

#### International Organisations

##### PETRA study on perinatal HIV transmission in Africa Trial Management Committee

UNAIDS  
Committee member, 1995-

##### International AIDS Society

International AIDS Society  
Past-president and member, 1988-

### HIV-NAT Thai Red Cross Program on AIDS

HIV-NAT (HIV Netherlands, Australia, Thailand), Bangkok, Thailand  
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### John Kaldor

#### HIV related

##### National HIV Surveillance Committee

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##### National Centre in HIV Social Research Scientific Advisory Committee

National Centre in HIV Social Research  
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#### Other communicable diseases

##### Communicable Diseases Network Australia and New Zealand

Commonwealth Department of Health and Aged Care  
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##### NSW Health Department Sexual Health Advisory Committee

NSW Health Department  
Committee member, 1995-

##### Hepatitis C Council of NSW Medical Advisory Panel

Hepatitis C Council of NSW  
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##### STD/HIV Subcommittee of the Central Australian Disease Control Coordinating Committee

Northern Territories Health  
Committee member, 1998-

##### NSW Health Department Hepatitis C Awareness Campaign Working Group

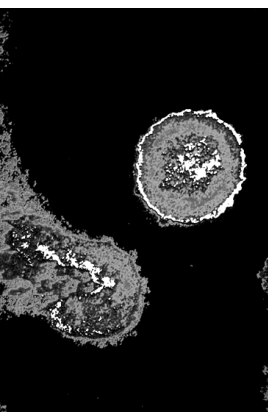
NSW Health Department  
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##### National Incident Hepatitis C Case Register Advisory Committee

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##### Steering Group for CMO Report on Communicable Disease

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**UNSW Centre for Public Health Management Committee**

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Committee member, 1999-

**UNSW Faculty of Medicine Research Advisory Committee**

UNSW Faculty of Medicine  
Committee member, 1999-

**Evaluation Committee for Supervised Injecting Room Project**

NSW Health Department  
Committee member, 1999-

**CDHAC Sexual Health Reference Group**

Commonwealth Department of Health and Aged Care  
Member, 1999-2000

**Repatriation Medical Authority**

Repatriation Medical Authority  
Committee member, 2000-

**Repatriation Medical Authority Subcommittee on Ionising Radiation Dose**

Repatriation Medical Authority  
Committee member, 2000-

**ANCAHRD Indigenous Australians' Sexual Health Committee**

Australian National Council on AIDS, Hepatitis C, and Related Diseases (ANCAHRD)  
Committee member, 2000-

**National Health and Medical Research Council Project Grants Committee**

National Health and Medical Research Council  
Committee member, 2000-

**International**

**Temporary adviser on analysis and interpretation of HIV sentinel surveillance, Cambodia**

WHO  
Consultant, 2000

**Consultancy on HIV, AIDS and STI Surveillance, Papua New Guinea**

WHO  
Consultant, 2000



**Monitoring the AIDS Pandemic Steering Committee**

MAP  
Consultant, 1996-

**Cochrane Collaborative Review Group on HIV Infection and AIDS, Biomedical Interventions Reviews Editor**

Cochrane Collaborative Review Group on HIV infection and AIDS  
Consultant, 1998-

**Consultancy for Family Health International to Advise on Analysis of HIV Surveillance Data in Cambodia**

Family Health International  
Consultant, 2000

**Member of Design Team for AUSAID for Phase II of HIV/AIDS Project, Indonesia**

AusAID  
Consultant, 2000

**Andrew Grulich**

**Board of Governors**

AIDS Council of NSW  
Vice President, 2000

**Vaccine Policy Reference Group**

Australian Federation of ADIS Organisations  
Member, 2000-

**Executive Committee**

Australasian Society for HIV Medicine  
Vice President, 2000-2002

**Editorial Committee: HIV and Viral Hepatitis: A Guide for Primary Care**

Australasian Society for HIV Medicine  
Member, 2000-

**Resource Approval Panel**

Australian National Council on AIDS, Hepatitis C, and Related Diseases (ANCAHRC)  
Medical reviewer, 2000

**Committee for the Development and Review of Guidelines on the Availability of Post-Exposure Prophylaxis Against HIV in Non-Occupational Settings**

NSW Health Department  
Member, 1998-

**AIDS Social Research Advisory Committee**

NSW Health Department  
Member, 2000-

**National HIV Committee**

Australian National Council on HIV, Hepatitis C and Related Diseases  
Committee member, 2000-

**2001 Conference Organising Committee**

Australasian Society for HIV Medicine  
Co-convenor, until October 2001

**Greg Dore**

**6th ICAAP Conference Organising Committee**

Convenor, Treatment and Care Stream, 2000-2001

**3rd Australasian Hepatitis C Conference Organising Committee**

Convenor, Epidemiology and Public Health Stream, 2001-2002

**ASHM Blood-Borne Virus Monograph Editorial Committee**

Australasian Society for HIV Medicine  
Member, 2000-2001

**ASHM Standing Committee on Hepatitis C**

Australasian Society for HIV Medicine  
Chair, 2000-

**Hepatitis C Council of NSW Media and Research Advisory Panel**

Hepatitis C Council of NSW  
Member, 2000-

**Matthew Law**

**The DAD Study Steering Committee**

Copenhagen HIV Programme  
Oversee the DAD Study, 1999-

**The Lipodystrophy Case Definition Study Steering Committee**

National Centre in HIV Epidemiology and Clinical Research  
Oversee the LDCD Study, 2000-

**Fraser Drummond**

**ACON Board**

AIDS Council of NSW member, 1997

*Academic activities***Students supervised by NCHECR academic staff**

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Students are enrolled at UNSW unless otherwise specified.

**Supervised by David Cooper**

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**Master of Public Health candidate**

**Helen Fraser**

A prevalence survey of lipodystrophy in HIV positive patients in Japan.

**Master of Science candidate**

**Oliver Distler**

Restoration of immune response to enteric pathogens in HIV disease.

**Doctor of Philosophy candidates**

**Angel (Bill) Jaramillo**

Characterisation of T-cell repertoire variation in HIV-1 positive individuals at primary infection.

**Palanee Ammaranond**

Natural versus vaccine induced T-cell responses to HIV.

**Dominic Dwyer**

Molecular studies of HIV-1 and HIV-2.

**John Miller**

Lipodystrophy in patients with HIV disease.

**Nicole Newcombe**

Primary HIV infection: clinical severity, cellular immune responses and host genetics.

**Supervised by John Kaldor**

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**Master of Applied Epidemiology (Indigenous health) awarded**

**Jill Guthrie (ANU)**

Indigenous HIV and STIs.

**Doctor of Philosophy candidates**

**Tony Butler**

Health status of prisoners.

**Rima Habib**

Retrospective cohort study of cancer incidence and mortality among nuclear industry workers at Lucas Heights Science and Technology Centre.

**Ann Mijch (Monash University)**

Measuring and managing HIV virological failure.

**Master of Public Health candidates**

**Shellee Korn**

Incidence of hepatitis C in a cohort of HIV-positive patients of an inner-city practice; and rate of uptake of hepatitis A and B vaccination within the same cohort.

**Melissa Irwin**

Protease inhibitor-related lipodystrophy.

**Master of Applied Epidemiology candidate**

**Jenean Spencer (ANU)**

Development of hepatitis C surveillance and epidemiology.

**Master of Medicine (STD/HIV) candidates**

**Elizabeth Sullivan (University of Sydney)**

Prevalence survey of sexually transmitted infections in women attending a first visit antenatal clinic in Vila, Vanuatu, 1999-2000.

**Supervised by David Cooper and John Kaldor**

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**Doctor of Philosophy Awarded**

**Greg Dore**

Natural history of HIV-related opportunistic infections.

**Lesley Ashton**

Factors influencing the natural history of HIV-1 infection.

**Supervised by John Kaldor and Alex Wodak**

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**Doctor of Philosophy candidate**

**Margaret MacDonald**

Monitoring the prevalence of HIV, hepatitis B and hepatitis C in intravenous drug users.

### **Supervised by Andrew Grulich**

#### **Master of Public Health awarded**

##### **Sharon Boatwright**

Sources of haematological stem cell donations in Australia: a comparison of the Australian Bone Marrow Donor Registry and Australian Cord Blood Bank.

#### **Master of Public Health candidate**

##### **Darren Su**

Chronic immune stimulation in the development of non-Hodgkin's lymphoma in people with HIV infection.

#### **World Health Organisation Fellowship**

##### **Dr Bo-Kyung Jeong**

### **Supervised by Greg Dore**

#### **Master of Public Health candidate**

##### **Shahzad Baig**

Ethnicity and sexually transmissible infection risk at a Sydney sexual health clinic.

##### **Mark Danta (University of Sydney)**

Predictors of hepatic fibrosis among people with chronic hepatitis C: an analysis of the S100 interferon database.

### **Supervised by Bruce Brew**

#### **Doctor of Philosophy awarded**

##### **Louise Pemberton**

Molecular basis for the pathogenesis of AIDS dementia.

### **Staff lecturing at tertiary courses**

#### **David Cooper**

##### **Course coordination**

Reach Asia training programme in HIV/AIDS Clinical management, Bangkok, Thailand

##### **Course coordination/lecturing**

Reach Asia training programme in HIV/AIDS Clinical Management, Shanghai, China

Reach Asia training programme in HIV/AIDS Clinical Management, Sydney

##### **Course lecturing**

Interactive sessions - Year 6 Medicine, Prince of Wales Hospital Clinical School, Sydney

#### **John Kaldor**

##### **Course coordination/course lecturing**

Indonesia-Australia Specialised Training Project in HIV/AIDS Management and Development, UNSW, Sydney

Epidemiology, Master of Public Health, UNSW, Sydney

##### **Course lecturing**

Year 4 Medicine, School of Community Medicine, UNSW, Sydney

HIV/AIDS: challenging and changing health care systems, Master of Public Health, UNSW, Sydney

Industry-funded short courses in epidemiology, Sydney/Melbourne

Post Registration nursing course in sexual health, Sydney Hospital, Sydney

Case studies in epidemiology, Master of Public Health, UNSW, Sydney

#### **Andrew Grulich**

##### **Course coordination/course lecturing**

Epidemiology, Master of Public Health, UNSW, Sydney

Case studies in epidemiology, Master of Public Health, UNSW, Sydney

##### **Course lecturing**

Indonesia-Australia specialised training project in HIV/AIDS management and development, UNSW, Sydney

Master of Medicine (Sexual Health), Westmead Hospital, Sydney Diploma of Sexual Health Counselling Course, Sydney Hospital

Postgraduate nursing course, NSW College of Nursing, Sydney

Reach Asia training programme in HIV/AIDS clinical management, Sydney

## **Greg Dore**

### **Course coordination/course lecturing**

HIV/AIDS: Challenging and changing health care systems, Master of Public Health  
UNSW, Sydney

### **Course lecturing**

Shandong Province, China, Public Health Officer Training Course, Sydney  
Master of Medicine (STI and HIV), University of Sydney  
Indonesia-Australia specialised training project in HIV/AIDS management and development, UNSW, Sydney  
Reach Asia training programme in HIV/AIDS clinical Management, Shanghai, China  
Post registration nursing course in sexual health, Sydney Hospital  
Short course in sexual health medicine, Prescribers Course, ASHM, Sydney  
Post registration nursing course in sexual health, Sydney Hospital  
Infection and immunity - Year 3 Science, University of Adelaide  
Reach Asia training programme in HIV/AIDS clinical management, Sydney

### **Course tutoring**

Clinical tutorials - Year 3 Medicine, UNSW (St Vincent's Hospital), Sydney  
Epidemiology for public health, Master of Public Health, UNSW, Sydney

## **Matthew Law**

### **Course lecturing**

Reach Asia training programme in HIV/AIDS clinical management, Sydney

## **Bruce Brew**

### **Course lecturing**

Master in HIV Studies, University of Western Sydney, Post registration nursing course in HIV infection and disease, Sydney Hospital  
Year 6 Medicine, School of Community Medicine, UNSW, Sydney

### **Course tutoring**

FRACP Part 1 - clinical tutorials

## **Sean Emery**

### **Course coordination**

ESPRIT regional training program, Sydney  
Reach Asia training programme in HIV/AIDS clinical management, Sydney  
ESPRIT Thailand training programme, Bangkok, Thailand

## **Dianne Carey**

### **Course lecturing**

Short course in HIV medicine, prescribers course, ASHM, Sydney  
Pharmacology, Master of Medicine (Sexual Health), University of Sydney/ UNSW  
Pharmacology, Postgraduate Nursing Course, Sydney Hospital  
HIV Pharmacology, Master of Clinical Pharmacy, University of Sydney

## **Lesley Ashton**

### **Course lecturing**

HIV/AIDS: Challenging and changing health care systems, Master of Public Health, UNSW, Sydney  
Indonesia-Australia specialised training project in HIV/AIDS management and development, UNSW, Sydney

### **Course tutoring**

HIV/AIDS: challenging and changing health care systems. Master of Public Health, UNSW, Sydney

## **Don Smith**

### **Course coordination**

Primary care case presentation series (convenor with A/ Professor Julian Gold), Sydney

### **Course lecturing**

Reach Asia training programme in HIV/AIDS clinical management, Bangkok, Thailand  
Sexually Transmitted Diseases/HIV, Master of Medicine (Sexual Health), University of Sydney/ UNSW, Sydney  
Reach Asia training programme in HIV/AIDS clinical management, Sydney

### **Course tutoring**

Antiretrovirals workshop, Reach Asia training programme in HIV/AIDS clinical management, Bangkok, Thailand

## Funding

### Commonwealth Department of Health and Aged Care

The Commonwealth Department of Health and Aged Care provided an allocation in 2000 to fund the activities and administration of the National Centre. It also provided funding for the Clinical Trials and Research Committee (CTARC). For administrative purposes, these funds are allocated into the following categories:

<i>Core Allocation</i> .....	2,812,518
<i>Clinical Trial and Research Advisory Committee</i> .....	505,186

### Other Commonwealth Department of Health and Aged Care grants

<i>CDHAC: Equipment Grant</i> .....	244,390
<i>CDHAC: Hepatitis C Surveillance and Research Activities</i> .....	232,702
<i>CDHAC: Long-term Asymptomatic HIV Infection in Australia</i> .....	92,811
<i>CDHAC: The Health and Treatments Study</i> .....	67,030
<i>CDHAC: Development of Hepatitis C Strategy</i> .....	10,000

### Other grants and contracts

<i>University of Minnesota: ESPRIT Study</i> .....	613,633
<i>United States National Institutes of Health: HIV Vaccine Design and Development Team Contract</i> .....	431,957
<i>UNSW: Research Infrastructure Block Grant</i> .....	399,951
<i>UNSW: Research Quality Funds</i> .....	345,000
<i>Ingenix Pharmaceutical Services Inc.: Lipodystrophy Case Definition Study</i> .....	175,300
<i>United Kingdom Medical Research Council: INITIO Study</i> .....	163,676
<i>NH&amp;MRC: Role of Kynurenine Pathway Metabolites in the Pathogenesis of AIDS Dementia Complex</i> .....	66,104
<i>Fred Hutchinson Cancer Research Centre, University of Washington: AIRDP Study</i> .....	58,804
<i>Swiss Re Life and Health Australia Ltd: Natural History of Hepatitis C Infection</i> .....	48,000
<i>UNAIDS: Thai TB Prophylaxis Trial</i> .....	34,565
<i>NSW Department of Health: Positive Health Cohort</i> .....	18,528
<i>Consulting fees</i> .....	6,818
<i>Ohio State University (AIDS Malignancy Consortium)</i> .....	5,423
<i>Donations to HIV Research</i> .....	3,500

### Pharmaceutical industry funding

<i>GlaxoSmithKline Research and Development (UK)</i> .....	690,321
<i>Bristol-Myers Squibb Pharmaceuticals (Australia)</i> .....	267,792
<i>Gilead Sciences Inc.</i> .....	181,882
<i>Chiron Corporation</i> .....	132,118
<i>Merck Sharp &amp; Dohme (Australia)</i> .....	102,243
<i>GlaxoSmithKline Australia Ltd</i> .....	131,244
<i>Abbott Australia Pty Ltd</i> .....	90,000
<i>Agouron Pharmaceuticals USA Inc</i> .....	64,171
<i>Cytran Inc.</i> .....	26,203



## Presentations and conferences

### April

The natural history of hepatitis C infection.

**Dore G**, Freeman A, **Law M**, **Kaldor J**. *The Australasian Society for Infectious Diseases Annual Scientific Meeting*. Leura, NSW.

Survey of community attitudes to injecting drug use and the needle and syringe program.

**MacDonald M**, Wodak A, **Kaldor JM**. *11<sup>th</sup> International Conference on the Reduction of Drug Related Harm*. Jersey, UK.

### May

National linkage of HIV, AIDS and cancer incidence data. **Grulich AE**, **Li Y**, **Correll P**, **McDonald AM**, **Kaldor JM**. *National AIDS Malignancy Conference*. Bethesda, USA.

National monitoring of occupational exposures to hepatitis C virus, HIV and hepatitis B virus infection. **MacDonald M** on behalf of the state coordinators and the participating sites. *Australian Infection Control Association First Biennial Conference*. Adelaide, SA.

HIV infection and related risk behaviour among cocaine injectors in Sydney. **MacDonald M**, vanBeek I, Dolan K, Maher L, **Kaldor JM** and the collaboration of Australian NSPs. *National HIV Social Research Conference*. Sydney, NSW.

Increases in unprotected anal intercourse among gay men. **Prestage G**.

National Gay Educators' Conference. Sydney, NSW.

CSF S100 concentrations predict rapid AIDS dementia progression. **BJ Brew**, L Pemberton. *Australian Association of Neurologists Annual Scientific Meeting*. Melbourne.

### June

Decision-making in therapy for chronic hepatitis C infection. **Dore G**. *2<sup>nd</sup> Annual Hepatitis C Educators Workshop*. Brisbane, QLD.

Monitoring HIV prevalence and incidence in metropolitan public sexual health clinics in Australia. **McDonald AM**, **Kaldor JM** for the Collaborative Group on Sentinel HIV Surveillance in Sexual Health Clinics. *Australasian Sexual Health Conference*. Darwin, NT.

CSF S100 concentrations predict rapid AIDS dementia progression. **BJ Brew**, L Pemberton. *Neuroscience of HIV Infection Conference*. Edinburgh, Scotland.

### July

An astrocyte marker in the CSF correlates with moderate/severe ADC and predicts progression. **BJ Brew**, L Pemberton. *XIII International AIDS Conference*. Durban, South Africa.

### September

Lipodystrophy and metabolic abnormalities in a cross-sectional study of participants in randomised controlled studies of combination antiretroviral therapy (ARV). **Law MG**, **Emery S**, French M, Carr A, Chuah J, **Cooper DA**. *2<sup>nd</sup> International Workshop on Adverse Drug Reactions and Lipodystrophy in HIV*. Toronto, Canada.

D38+ +/CD8 T cell subsets: a key marker to monitor antiretroviral responses in primary HIV infection (PHI) patients receiving HAART. **D Smith**. *40<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)*. Toronto, Canada.

### October

*Australasian Society for HIV Medicine, 12<sup>th</sup> Annual Conference*. Melbourne, VIC.

A further Three *nef*-Deleted Strains of HIV-1 Associated with Long-Term Nonprogression. Rhodes D, **Ashton L**, Solomon A, **Kaldor JM**, Carr A, **Cooper DA**, Deacon N on behalf of the Australian LTNP Study Group.

Prognosis of AIDS Dementia Complex (ADC) and predictors of post-ADC survival. **Pan Y**, **Dore G**, van der Bij A, **Kaldor JM**, **Brew B**.

Review of antenatal HIV and hepatitis C virus screening policy and practice in Australia. **Spencer JD**, **Dore G**, Tibbits D, Tippet C, Mead C, **Kaldor JM**.

Randomised study of intermittent subcutaneous interleukin-2 therapy without antiretrovirals versus no treatment. **Emery S**.

Seroprevalence and risk factors for human herpesvirus 8 in the SMASH cohort. **Grulich AE**, **Prestage G**, Cunningham P, Kippax S, Isaacs M, Rawlinson W, **Kaldor JM**.

Monitoring non-occupational post exposure prophylaxis (PEP) in New South Wales.

**Correll P, Smith D, Kippax S, Hendry O, Grulich A.**

What is the likely effect of combination antiretroviral treatments on numbers of new HIV infections? **Law MG, Prestage G, Grulich AE.**

Use of interventions for reducing mother-to-child HIV transmission in Australia.

**McDonald AM, Li Y, Cruickshank M, Elliott E, Kaldor JM** and Ziegler JB.

Newly diagnosed HIV infection in Australia attributed to heterosexual contact, 1994 – 1999. **McDonald AM, Kaldor JM** for the National HIV Surveillance Committee.

Time trends in HIV incidence among homosexually active men seen at sexual health clinics in Australia, 1993 – 1999. **McDonald AM** for the Collaborative Group on Sentinel HIV Surveillance in Sexual Health Clinics.

Trends in antiviral treatments, CD4 counts and viral load in the Australian HIV Observational Database. **Petoumenos K** on behalf of the Australian HIV Observational Database.

Under what circumstances do gay men forego condom use in seroconcordant HIV-negative regular relationships? **Prestage, G, Van de Ven, P, Grulich, A, Kippax, S.**

Review of antenatal HIV and hepatitis C virus screening policy and practice in Australia. **Spencer J.**

Hepatitis C infection in Australia – epidemiology, natural history and therapy **Dore G.** *ALUCA National Conference.* Gold Coast, QLD.

Decision-making in therapy for chronic hepatitis C infection. **Dore G.** *2<sup>nd</sup> Victorian Hepatitis C Council Conference.* Melbourne, VIC.

Natural history of hepatitis C infection. **Dore G, Freeman A, Law MG, Kaldor J.** *8<sup>th</sup> Annual St Vincent's Hospital Hepatitis Symposium.* Melbourne, VIC.

Preventing hepatitis C virus infection in Australia. **MacDonald M.** *8<sup>th</sup> Annual St Vincent's Hospital Hepatitis Symposium.* Melbourne, VIC.

## December

HIV associated cancer in the era of potent anti-retroviral therapy: National linkage study.

**Grulich A, Li Y, McDonald AM, Correll P, Law MG, Kaldor JM.** *Australasian Epidemiological Association Annual Scientific Meeting.* Canberra, ACT.

## Poster presentations

### January

Comparison of immune reconstitution in subjects treated with HAART during primary and chronic HIV-1 infection. **Smith D.** *7<sup>th</sup> Conference on Retroviruses and Opportunistic Infections.* San Francisco, USA.

CCR5+ CD4 and CD8 T lymphocytes in primary HIV-1 infection. **Smith D.** *7<sup>th</sup> Conference on Retroviruses and Opportunistic Infections.* San Francisco, USA.

### March

Potential interaction with protease and gemfibrozil. **Carey D.** *First International Workshop in Clinical Pharmacology of HIV Therapy.* Noordwijk, The Netherlands.

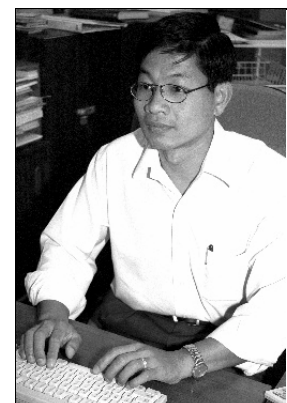
### April

The natural history of chronic hepatitis C: a systematic review. **Dore G, Freeman A, Law MG, Kaldor J.** *10<sup>th</sup> International Symposium on Viral Hepatitis and Liver Disease.* Atlanta, USA.

Clinical management of hepatitis C infection: targeting the progressors. **Dore G.** *The Australasian Society for Infectious Diseases Annual Scientific Meeting.* Leura, NSW.

### June

Is primary HIV a medical emergency? A prospective study of immune reconstitution and viral suppression in early and late stages of primary HIV-1 infection. **Smith D.** *4<sup>th</sup> International Workshop on HIV Drug Resistance & Treatment Strategies.* Barcelona, Spain.



## July

*XIII International AIDS Conference*. Durban, South Africa.

Risk factors for AIDS Dementia Complex. **Dore G**.

Spectrum of AIDS-defining illnesses in Australia, 1992-1998: Influence of birthplace. **Dore G, Li Y, McDonald AM, Kaldor J**.

Risk factors for AIDS Dementia Complex. **Dore G, Pan Y, van der Bij A, Kaldor J, Brew B**.

Monitoring non-occupational post exposure prophylaxis (PEP) in New South Wales. **Correll P, Smith DE, Kippax S, Hendry O, Grulich AE**

Sexual behaviour during a four-year period within a cohort of Australian men. **Prestage G, Van de Ven P, Grulich A**.

Sexual risk behaviour increases and is associated with HIV optimism among HIV-infected and uninfected gay men in Sydney over the four-year period to February 2000. Van de Ven P, **Prestage G**, Knox S, Crawford J, **Grulich A**, Allan B, Fowler D, Kippax S.

Australian gay men of Asian background. **Prestage, G**, Van de Ven, P.

HIV disease progression following newly acquired infection in Australia, 1991 – 1998. **McDonald AM, Li Y and Kaldor J**.

## September

The Australian Prevalence Survey of Lipodystrophy Syndrome. **J Miller**

*2<sup>nd</sup> International Workshop on Adverse Drug Reactions and Lipodystrophy in HIV*. Toronto, Canada.

Importance of centralised assessment of dual-energy X-ray absorptiometry (DEXA) in multicentred studies of HIV associated lipodystrophy - The PIILR study DEXA QA programme. **G Kauffman**. *40<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC)*. Toronto, Canada.

## October

*Australasian Society for HIV Medicine, 12<sup>th</sup> Annual Conference*. Melbourne, VIC.

HIV associated cancer in the era of potent anti-retroviral therapy: National linkage study. **Grulich A, Li Y, McDonald AM, Correll P, Law MG, Kaldor JM**.

A randomised, double-blind study of gemfibrozil (GF) for the treatment of protease-associated hypertriglyceridaemia. **Miller J**.

Problems with publishing results of interim analyses of randomised clinical trials. **Law MG**.

Itraconazole for primary fungal prophylaxis in HIV patients: a randomised placebo-controlled trial. **Smith D**.

Estimation of cancer incidence in people with HIV infection prior to the occurrence of AIDS. **Li Y, Law MG, Grulich AE, McDonald AM, Correll P, Kaldor JM**.

Rates of change of combination antiretroviral treatments in Australia, 1997 - 2000. **K Petoumenos** on behalf of the Australian HIV Observational Database.

Potential interaction with ritonavir and gemfibrozil. **Carey D**.

## November

Rates of change of combination antiretroviral treatments in Australia. **Law MG** on behalf of the Australian HIV Observational Database. *5<sup>th</sup> International Congress on Drug Therapy in HIV Infection*. Glasgow, UK.

Enhancing saquinavir levels by utilising novel antiretrovirals as cytochrome p450 inhibitors. **Smith D**. *5<sup>th</sup> International Congress on Drug Therapy in HIV Infection*. Glasgow, UK.

## Other presentations by staff members

### David Cooper

#### January

Factors affecting the success of HAART & Case Studies. *GlaxoSmithKline (Thailand) Ltd Roundtable discussion – Optimising ART-challenges and opportunities*. Bangkok, Thailand.

Immunological monitoring: phenotypic and functional assays Antiretrovirals: an overview, and Immune reconstitution and immune reactivation disease. *Symposium on HIV Medicine*. Bangkok, Thailand.



Metabolic toxicity and lipodystrophy. 7<sup>th</sup> Conference on Retroviruses and Opportunistic Infections. San Francisco, USA.

### March

HIV into the new millennium – *Australasian Perspective. Millennium Bugs HIV & STDs – Seventh Scientific Meeting.* Sydney, NSW.

Lipodystrophy and metabolic complications of HIV disease treatment. 4<sup>th</sup> Annual John T Carey Lecturer and Visiting Professor. Cleveland, USA.

The management and prevention of lipodystrophy. *Managing HIV Infection in the 21<sup>st</sup> Century.* Taormina, Sicily.

HIV-NAT: clinical trial activities in Thailand to provide treatment and improve survival in HIV-infected persons. *AusAID.* Canberra, ACT.

### May

Public lecture: Lipodystrophy and metabolic disorders in HIV disease, and In-house Lecture: Clinical trials of HIV treatments in the developing world – HIV-NAT as a model. *2000 AIDS Research Amsterdam 6<sup>th</sup> ARA Endowed Chair for AIDS Research.* Amsterdam, The Netherlands.

### June

Therapeutic overview: What's new? College Update-24<sup>th</sup> June

HIV Update. *Australasian Sexual Health Conference Ven Troppo.* Darwin, NT.

### September

Meet the Experts Roundtable: Management of the HIV-infected woman including pregnancy. Meet the Experts Roundtable: Antiretroviral Therapy I, II, III. Keynote Symposium: AIDS Plenary. *Didactic Symposium: Lipodystrophy and Metabolic Complications of HIV 40<sup>th</sup> Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC).* Toronto, Canada.

### October

How is toxicity of ARV influencing HIV research? *ASHM 2000 - AIDS into the next Millennium.* Melbourne, VIC.

Prospects for an HIV/AIDS vaccine. *XVII International Congress of Allergology and Clinical Immunology (ICACI 2000): Allergy – Global challenges for the third millennium.* Sydney, NSW.

ICAAC Conference Report. *St Vincent's Hospital HIV/Immunology & Infectious Diseases Unit Journal Club.* Sydney, NSW.

A perspective on the adverse effects of HAART: an overview including lipodystrophy. 5<sup>th</sup> International Congress on Drug Therapy in HIV infection. Glasgow, Scotland.

Toxicity associated to antiretroviral therapy in HIV infection 2<sup>nd</sup> Colloque de Recherche Lemanique sur le SIDA. Lausanne, Switzerland.

### November

Lipodystrophy and the adverse events of anti retroviral therapy. *Panhellenic HIV Congress.* Athens, Greece.

The NCHECR and hepatitis. *CTARC Hepatitis Research Workshop.* Sydney, NSW (with John Kaldor).

### December

Metabolic overview, and Switch studies, and SMART substudy. *Terry Beirn Community Programs for Clinical Research on AIDS. CPCRA Winter 2000 Group Meeting.* Washington, USA.

Invited Speaker: Acute primary HIV infection: recognition and natural history. *RSM/Anglo-American Conference, New Trends in HIV Management and Research.* London, UK.

Invited Speaker: Long-term toxicity. Roundtable panel member. *Frontiers in Drug Development for Antiretroviral Therapies HIV DART 2000.* Isla Verde, Puerto Rico.

### John Kaldor

#### January

Changing epidemiology of HIV in the era of HAART. The HIV Netherlands-Australia-Thailand Research Collaboration (HIV-NAT), *The Thai Red Cross AIDS Research Centre 2000 Bangkok Symposium on HIV Medicine.* Bangkok, Thailand.



### March

Natural history of chronic hepatitis C infection: a systematic review. *MAE Conference*, NCEPH. Canberra, ACT.

### April

Hepatitis C in prisons. *NSW Corrections Health Hepatitis C Training Weekend*. Sydney, NSW.

### May

Meet the Expert Breakfast Session: Risk factors for occupationally acquired HIV and hepatitis C virus – the Australian experience; Epidemiological radiation studies in Australia and overseas. *RACP Annual Scientific Meeting*. Adelaide, SA.

The role of surveillance for sexually transmitted infections. *WHO National Consensus Workshop of the Epidemiology of Sexually Transmitted Infections and HIV/AIDS in Papua New Guinea*. Port Moresby, Papua New Guinea.

### June

Using epidemiological assessment to support public health strategies, and Monitoring HIV prevalence and incidence in metropolitan public sexual health clinics in Australia. *Ven Troppo, Australasian Sexual Health Conference 2000. The Australasian College of Sexual Health Physicians*. Darwin, NT.

### July

*Chair debate*: TB Prophylaxis should be given to all HIV infected persons. *Chair symposium*: Effect of HAART on HIV trends. *XIII International AIDS Conference*. Durban, South Africa.

### August

Update on hepatitis C. *NSW Health Department Hepatitis Advisory Committee*. Sydney, NSW.

### October

Monitoring the HIV epidemic in the era of effective antiretroviral therapy. *Australasian Society for HIV Medicine 12<sup>th</sup> Annual Conference*. Melbourne, VIC

The role of behavioural monitoring in national surveillance for HIV/AIDS. *Third International HIV/AIDS Surveillance Workshop*. London, UK.

### November

*Co-Chair plenary session*: Incentives or impediments to recruitment and retention of subjects in HIV clinical trials. *NCHECR Protocol Working Group*. Sydney, NSW.

The NCHECR and Hepatitis. *CTRAC Hepatitis Research Workshop*. Sydney, NSW (with David Cooper).

Biomedical strategies for responding to the HIV epidemic. *National Academies Forum. Every Eight Seconds: AIDS Revisited*. Canberra, ACT.

*Chair symposium*: Epidemiology in action. *Workshop presentation*: Logistic regression in epidemiology. Chair student workshop. *Australasian Epidemiological Association Annual Scientific Meeting*. Canberra, ACT.

## Andrew Grulich

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### January

Post exposure prophylaxis for non-occupational exposure to HIV. *AIDS Council of NSW Service Providers Forum, Western Sydney Branch*. Sydney, NSW.

### February

HIV re-infection. *AIDS Council of NSW Community Forum*. Sydney, NSW.  
National AIDS Cancer linkage. *NCHECR Journal Club*. Sydney, NSW.  
Should we be promoting non-occupational post-exposure prophylaxis against HIV? *South Eastern Sydney Area Health Service Health Providers Forum*. Sydney, NSW.

### March

Non-occupational post-exposure prophylaxis, and oral sex and HIV risk. *NSW Health Ministerial Advisory Committee on AIDS strategy*. Sydney, NSW.

### April

PEP: scientific background. *Non-occupational HIV PEP Seminar and Workshop, Australasian Society for HIV Medicine*. Sydney, NSW.

## May

Oral sex, and HIV re-infection. *HIV GP Study Group*. Sydney, NSW.

What does HIV teach us about the aetiology of NHL? *Viral Epidemiology Branch, Division of Viral Carcinogenesis, National Cancer Institute*. Bethesda, USA.

## June

Risk factors for non-Hodgkin's lymphoma. *Centenary Cancer Research Institute*. Sydney, NSW.

De-mystifying epidemiology. *AIDS Council of NSW, Women and HIV speaker series*. Sydney, NSW.

## August

Feedback from the Durban AIDS conference. *St George Sexual Health Clinic*. Sydney, NSW.

Feedback from the Durban AIDS conference. *Sydney GP HIV study group*. Sydney, NSW.

Feedback from the Durban AIDS conference. *Melbourne GP HIV study group*. Melbourne, VIC.

## October

Recent trends in unprotected anal intercourse and in HIV transmission. *NSW Health Department Committee on AIDS Strategy*. Sydney, NSW.

Non-occupational PEP. *NCHECR nurses network*. Melbourne, VIC.

## November

Update on HIV incidence. NSW Health Department Committee on AIDS Strategy. Sydney, NSW.

*Chair: Surveillance. NSW Communicable disease control workshop*. Sydney, NSW.

## Greg Dore

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## February

Hepatitis D to G. *Sexual Health Society Meeting*. Sydney, NSW.

## March

Hepatitis C and the primary care giver. *Southern Region Sexual Health, Hepatitis C, and HIV seminar*. Canberra, ACT.

## April

The natural history of hepatitis C infection. *The Australasian Society for Infectious Diseases Annual Scientific Meeting*. Leura, NSW.

## June

Epidemiology of HIV in Australia. *Positive Speakers Bureau Training Workshop*. Sydney, NSW.

Epidemiology and natural history of hepatitis C. *Royal Prince Alfred Hospital Hepatitis C Seminar*. Sydney, NSW.

Decision-making in therapy for chronic hepatitis C infection. *2<sup>nd</sup> Annual Hepatitis C Educators Workshop*. Brisbane, QLD.

## July

Antiviral therapy for hepatitis C. *HIV, Immunology and Infectious Diseases Unit Journal Club*. Sydney, NSW.

## August

Therapy for HIV/hepatitis C virus coinfection. *ASHM S100 Prescribers Course*. Sydney, NSW.

Epidemiology of hepatitis C. *Central Sydney Area Health Service (Mental Health)*. Sydney, NSW.

## October

Natural history of hepatitis C infection. *The University of Adelaide, Institute of Medical and Veterinary Science*. Adelaide, ACT.

Therapeutic strategies for chronic hepatitis C infection. *South Australian Department of Human Services: HIV, Hepatitis C and Related Programs*. Adelaide, ACT.

## November

Hepatitis C infection in Australia: Epidemiology, natural history and therapy. *ALUCA National Conference*. Gold Coast, QLD.

Therapeutic strategies for people with hepatitis C. *Hepatitis C Council of NSW Annual General Meeting*. Sydney, NSW.

Decision-making in therapy for chronic hepatitis C infection. *2<sup>nd</sup> Victorian Hepatitis C Council Conference*. Melbourne, VIC.



Natural history of hepatitis C infection. *8<sup>th</sup> Annual St Vincent's Hospital Hepatitis Symposium*. Melbourne, VIC.

## Matthew Law

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### January

The Australian HIV Observational Database. *Livingstone Road Sexual Health Clinic*. Sydney, NSW.

### May

Modelling the hepatitis C virus epidemic in Australia. *Public Health Network: Epidemiology Special Interest Group. NSW Cancer Council*. Sydney, NSW.

### June

National HIV Resistance Testing Database. *HIV Resistance Workshop*. Melbourne, VIC.

### September

Statistical Considerations in the CREST trial. *CREST Investigator Meeting*. Sydney, NSW.

### October

The Australian HIV Observational Database. *St Vincent's Hospital HIV Medicine Journal Club*. Sydney, NSW.

Intention to treat analyses. *HIV Clinical Trial Nurses Seminar*. Melbourne, VIC.

### November

Estimates and projections of the hepatitis C virus epidemic in Australia. *Symposium on Hepatitis B and C, St Vincent's Hospital*. Melbourne, VIC.

## Garrett Prestage

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### February

Increases in unprotected anal intercourse with casual partners among gay men. *Australian Federation of AIDS Organisations*. Sydney, NSW.

### March

Final report on the Sydney Men and Sexual Health project. *AIDS Council of NSW*. Sydney, NSW.

Findings from the Gay Community Periodic Surveys. *AIDS Council of NSW*. Sydney, NSW.

### April

Findings from the Gay Community Periodic Surveys. *Queensland AIDS Council*. Brisbane, QLD.

Findings from the Gay Community Periodic Surveys. *Queensland AIDS Council*. Cairns, QLD.

### May

Increases in unprotected anal intercourse with casual partners among gay men. *Australian Federation of AIDS Organisations*. Sydney, NSW.

### June

Findings from the Gay Community Periodic Surveys. *AIDS Council of South Australia*. Adelaide, SA.

### October

Findings from the Gay Community Periodic Surveys. *Victorian AIDS Council/Gay Men's Health Centre*. Melbourne, VIC.

Findings from the Asian Gay Men's Survey. *Gaywaves, 2-SER*. Sydney, NSW.

### November

Findings from the Gay Community Periodic Surveys. *Queensland AIDS Council*. Brisbane, QLD.

## Sean Emery

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### January

Invited Speaker: Immune responses to antiretroviral therapy, and Lipodystrophy. *National AIDS Meeting*. Rosario, Argentina.

### March

AIDS Vaccine Research. *AFAO*. Sydney, NSW.

### July

Clinical Trials, and HIV Vaccine Research. *ASHM Training Program*. Sydney, NSW.

### October

Future Trials, and HIV Vaccine Research. *Research Nurse Symposium*. Melbourne, VIC.

## Bruce Brew

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### May

HAART and AIDS dementia complex:

Implications for pathogenesis and treatment from epidemiological and clinical trials.

*NIMH and NINDS sponsored workshop on Impact of HAART on HIV-induced Disease of the Nervous System. National Institutes of Health. Washington, USA.*

AIDS dementia complex: pathogenetic issues.

*Johns Hopkins Hospital Department of Neurology. Washington, USA.*

### September

Invited participant in NINDS sponsored workshop on HIV and the peripheral nervous system. Rosslyn, Virginia, USA.

HIV and the central nervous system. *Grand Rounds St James Hospital. Dublin, Ireland.*

Neurological complications of HIV disease. *Grand Rounds St Vincent's Hospital. Dublin, Ireland.*

The kynurenine pathway in the pathogenesis of neurological diseases. *Grand Rounds Beaumont Hospital. Dublin, Ireland.*

## Don Smith

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### May

CNS effects of efavirenz. *Efavirenz workshop. Sydney, NSW.*

HIV pathogenesis. *HIV registrars meeting. Sydney, NSW.*

### August

Use of antiretrovirals. *HIV registrars meeting. Sydney, NSW.*

### October

Update on resistance testing. *NRL resistance workshop. Sydney, NSW.*

## Ann McDonald

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### June

Perinatal exposure to HIV in Australia, 1982 – 1999. *Women and HIV Speaker Series, AIDS Council of New South Wales. Sydney, NSW.*

## December

The role of country of birth in AIDS incidence in Australia. *Cultural diversity and HIV/AIDS forum, Liverpool Hospital. Sydney, NSW.*

## Margaret MacDonald

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### March

Cocaine injection in Sydney. *Cocaine Training Day, Fairfield Community and Allied Health Service, South Western Sydney Area Health Service. Sydney, NSW.*

### April

HIV and hepatitis C virus antibody among injecting drug users attending needle and syringe programs in Australia. *Trimbos Institute. Utrecht, The Netherlands.*

### July

Preventing HIV and hepatitis C virus among Australian Drug injectors: Policies and progress. *Public Health Laboratory Surveillance Seminar on blood borne viral infections among injecting drug users, London School of Tropical Health and Hygiene. London, UK.*

Hepatitis C virus infection among injecting users in Australia. *National Addiction Centre London. London, UK.*

### September

Hepatitis C virus infection among IDU at NSPs in Australia. *Returns on Investment Committee, Commonwealth Department of Health and Human Services. Canberra, ACT.*

### November

Drug Injection in Kings Cross: Health Indicators. *Kings Cross Police Training Day. Sydney, NSW.*

## John Miller

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### January

The Australian Prevalence Survey of Lipodystrophy Syndrome. *7<sup>th</sup> Conference on Retroviruses and Opportunistic Infections. San Francisco, USA.*

## Sarah Pett

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### April

Immunotherapy with Interleukin-2 – a novel treatment for HIV. *Chiron Corporation/NAPWA community presentation*. Melbourne, VIC.

Immunotherapy with Interleukin-2 – a novel treatment for HIV. *Chiron Corporation/NAPWA community presentation*. Sydney, NSW.

Immunotherapy with Interleukin-2 – a novel treatment for HIV. *Chiron Corporation/NAPWA community presentation*. Gold Coast, QLD.

Immunotherapy with Interleukin-2 – a novel treatment for HIV. *Chiron Corporation/NAPWA community presentation*. Newcastle, NSW.

Immunotherapy with Interleukin-2 – a novel treatment for HIV. *Chiron Corporation/NAPWA community presentation*. Perth, WA.

### October

SILCAAT October 2000, *and* Haemolytic anaemia and IL-2. *ESPRIT/SILCAAT Investigator Meeting*. Melbourne, VIC.

## NCHECR Staff on organising committees of conferences/workshops

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### David Cooper

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#### January

Symposium on HIV Medicine. Bangkok, Thailand.

#### March

Postgraduate Forum: HAART: Maintaining Your Standard. Langkawi, Malaysia

#### April

Virology in Perspective, Sixth Australian Seminar. Cairns, QLD.

### June

40<sup>th</sup> ICAAC Program Committee. Washington, USA.

NCHECR Shanghai Course. Shanghai, China.

### July

XIII International Conference on AIDS. Durban, South Africa.

### August

ESPRIT Meeting. Copenhagen, Denmark.

### September

2<sup>nd</sup> International Workshop on Adverse Drug Reactions and Lipodystrophy. Toronto, Canada.

### October

ASHM 2000, AIDS into the next Millennium. Melbourne, VIC.

5<sup>th</sup> International Congress on Drug Therapy in HIV infection. Glasgow, Scotland.

### December

Frontiers in Drug Development for Antiretroviral Therapies HIV DART 2000. Isla Verde, Puerto Rico.

## John Kaldor

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### July

XIII International Conference on AIDS. Durban, South Africa.

## Sean Emery

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### June

HIV Resistance Workshop. Melbourne, VIC.

### August

ESPRIT Meeting. Copenhagen, Denmark.

### October

Research Nurse Symposium. Melbourne, VIC.

## Publications

### Peer-reviewed

#### \* Invited publication

**Ashton LJ, Kaldor JM.** The historical development of epidemiological methods for studying HIV-1 disease progression. *Journal of Epidemiology and Biostatistics* 2000;5:67-78.

The AVANTI and INCAS Study Groups (**Cooper DA** member steering committee and investigator). Highly active antiretroviral therapy including protease inhibitors does not confer a unique CD4 cell benefit. *AIDS* 2000;14:1383-1388.

The AVANTI study group (**Cooper DA** member steering committee and investigator). AVANTI 2. Randomized, double-blind trial to evaluate the safety of zidovudine plus lamivudine versus zidovudine plus lamivudine plus indinavir in HIV-infected antiretroviral-naïve patients. *AIDS* 2000;14:367-374.

**Brew BJ, Dore G.** Decreasing incidence of CNS AIDS defining events associated with antiretroviral therapy. *Neurology* 2000;55:1424 (letter).

**Brew BJ.** Does HHV-8 have a neuroprotective role on the development of HIV encephalopathy? *Neurology* 2000;55:459-60 (letter).

Butler T, Donovan B, Taylor J, Cunningham AL, Mindel A, Levy M, **Kaldor J.** Herpes simplex virus type 2 in prisoners, New South Wales, Australia. *Int J STD AIDS* 2000;11:743-747.

Carr A, **Cooper DA.** Adverse effects of antiretroviral therapy. *Lancet* 2000;356:1423-1430.

Carpenter CCJ, **Cooper DA,** Fischl MA, Gatell JM, Gazzard BG, Hammer SM, Hirsch MS, Jacobsen DM, Katzenstein DA, Montaner JSG, Richman DD, Saag MS, Schechter M, Schooley RT, Thompson MA, Vella S, Yeni PG, Volberberding PA. Antiretroviral therapy in adults – Updated recommendations of the International AIDS Society – USA Panel. *JAMA* 2000;283:381-390.

Carr A, Chuah J, **Hudson J,** French M, Hoy J, **Law M,** Sayer D, **Emery S** and **Cooper DA** on behalf of the Oz Combo1 investigators. A randomised, open-label comparison of three highly active antiretroviral therapy regimes including two nucleoside analogues and indinavir for previously untreated HIV-1 infection: the OzCombo1 study. *AIDS* 2000;14:1171-1180.

Carr A, **Miller J, Law M, Cooper DA.** A syndrome of lipodatrophy, lactic acidemia and liver dysfunction associated with HIV nucleoside analogue therapy: contribution to protease inhibitor-related lipodystrophy syndrome. *AIDS* 2000;14:F25-F32.

CASCADE Collaboration (**Cooper D, Kaldor J, Vizzard J** collaborators). Changes in the uptake of antiretroviral therapy and survival in people with known duration of HIV infection in Europe: results from CASCADE. *HIV Medicine* 2000;1:224-231.

CASCADE Collaboration (**Cooper D, Kaldor J, Vizzard J** collaborators). Effect of ignoring the time of HIV seroconversion in estimating changes in survival over calendar time in observational studies: results from CASCADE. *AIDS* 2000;14:1899-1906.

CASCADE Collaboration (**Cooper D, Kaldor J, Vizzard J** collaborators). Survival after introduction of HAART in people with known duration of HIV-1 infection. *Lancet* 2000;355:1158-1159 (letter).

Clegg AO, **Ashton LA,** Biti RA, Badhwar P, Williamson P, **Kaldor JM,** Stewart GJ and the Australian Long-Term Non-Progressor Study Group. CCR5 promoter polymorphisms, CCR5 59029A and CCR5 59353C, are under represented in HIV-1 infected long-term non-progressors. *AIDS* 2000;14:103-108.

\***Clezy K, Emery S.** Clinical trials of antiretroviral therapy in developing countries. *Aust NZ J Med* 2000;29:3-4.



- Collaborative Group on AIDS Incubation and HIV Survival including the CASCADE EU Concerted Action (**Cooper D, Tindall B, Sharkey T, Vizzard J, Kaldor J** collaborators). Time from HIV-1 seroconversion to AIDS and death before widespread use of highly-active antiretroviral therapy: a collaborative re-analysis. *Lancet* 2000;355:1131-1137.
- Cunningham PH, Smith DG, Satchell C, **Cooper DA, Brew B**. Evidence for independent development of resistance to HIV-1 reverse transcriptase inhibitors in the cerebrospinal fluid. *AIDS* 2000;14:1949-1954.
- Dore GJ, Brew B**. Response to Eberly *et al.*, Kaposi's sarcoma and central nervous system disease: a real association or an artifact of the control group? *AIDS* 2000;14:2631-2632 (letter).
- Dore GJ, Kaldor JM**. Detection of HCV RNA in semen. *Lancet* 2000;356:1520 (letter).
- Duncombe C**. Reversal of hyperlipidemia and lipodystrophy in patients switching therapy to nelfinavir. *J Acquir Immune Defic Syndr* 2000;24:78-79 (letter).
- Emery S, Capra WB, Cooper DA, Mitsuyasu RT, Kovacs JA, Vig P, Smolskis M, Saravolatz LD, Lane HC, Fyfe GA, Curtin PT**, for the International Interleukin-2 Study Group. Pooled analysis of 3 randomized, controlled trials of interleukin-2 therapy in adult human immunodeficiency virus type 1 disease. *J Infect Dis* 2000;182:428-434.
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- \***Grulich A**. HIV risk in gay men: on the rise? *BMJ* 2000;320:1487-1488.
- Grulich AE, Dore GJ, Brew BJ**. Human herpes virus 8 and protection from AIDS dementia complex. *Herpes* 2000;7(2):38-40.
- Grulich AE, Wan X, Law MG, Milliken ST, Lewis CR, Garsia RJ, Gold J, Finlayson RJ, Cooper DA, Kaldor JM**. B-cell stimulation and prolonged immune deficiency are risk factors for non-Hodgkin's lymphoma in people with AIDS. *AIDS* 2000;14:133-140.
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- Guthrie JA, Dore GJ, McDonald AM, Kaldor JM** for the National HIV Surveillance Committee. HIV and AIDS in Aboriginal and Torres Strait Islander Australians:1992-1998. *Med J Aust* 2000;172:266-269.
- Hall WD, Ross JE, Lynskey MT, **Law MG, Degenhardt LJ**. How many dependent heroin users are there in Australia? *Med J Aust* 2000;173:528-531.
- Hales G, Beveridge A, Smith D**. The conflicting roles of clinicians versus investigators in HIV randomised clinical trials. *Culture Health & Sexuality* 2000;3:67-79.
- Hales G, Roth N, Smith D**. Possible fatal interaction between protease inhibitors and methamphetamine. *Antiviral Therapy* 2000;5:19 (letter).
- HIV Surrogate Marker Collaborative Group (**Cooper D** member). Human immunodeficiency virus type 1 RNA level and CD4 count as prognostic markers and surrogate end points: a meta-analysis. *AIDS Res Hum Retroviruses* 2000;16:1123-1133.
- International Collaboration on HIV and Cancer (**Cooper D, Kaldor J, Grulich A, Law M** investigators). Highly active antiretroviral therapy and incidence of cancer in human immunodeficiency virus-infected adults. *J Natl Cancer Inst* 2000;92:1823-1830.



- Kaldor JM, Dore GJ, Correll PKL.** Towards control of hepatitis C in the Asia-Pacific region – Public health challenges in hepatitis C virus infection. *J Gastroenterol Hepatol* 2000;15(suppl):E83-E90.
- Kaufmann GR, Bloch M, Zaunders JJ, Smith D, Cooper DA.** Long-term immunological response in HIV-1-infected subjects receiving potent antiretroviral therapy. *AIDS* 2000;14:959-969.
- Kaufmann GR, Cooper DA.** Antiretroviral therapy of HIV-1 infection: established treatment strategies and new therapeutic options. *Curr Opin Microbiol* 2000;3:508-514.
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- Law MG, Roberts SK, Dore GJ, Kaldor JM.** Primary hepatocellular carcinoma in Australia, 1978-1997: increasing incidence and mortality. *Med J Aust* 2000;173:403-405.
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## Non-peer reviewed

Anand C, Baker D, Doong N, **Smith D**. HIV/AIDS consultations. *Aust Fam Physician* 2000;29:517 (letter).

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