

Never Stand Still Faculty of Medicine The Kirby Institute for infection and immunity in society Kirby Institute AMMUAL REPORT 2011

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Professor Cooper speaking at the 2011 UNSW Town and Gown dinner

2011 was a year of achievements. We began the year as the National Centre in HIV Epidemiology and Clinical Research and ended it as The Kirby Institute for infection and immunity in society. At the launch, we welcomed and were honoured by University dignitaries including Chancellor David Gonski and Vice Chancellor and President Professor Fred Hilmer; the Hon. Malcolm Turnbull MP; present and past staff members, committee members, and many others who have contributed to our work over the 25 years since its inception. Another honoured guest was philanthropist and Kirby Institute benefactor Chuck Feeney. But the most fêted guest was Michael Kirby AC CMG, the former High Court judge whose long history as a warrior for health and human rights made him the ideal figurehead for our newly launched organisation. On the following pages are photographs of our launch on 4 April 2011 in UNSW's Leighton Hall.

2011 was also marked by staff expansion, research advances, successful grant applications and also extensive planning for our impending move to the main UNSW campus in Kensington. We welcomed two new groups to the Kirby during 2011: in January we established the Justice Health Research Program, under Professor Tony Butler, and in April we welcomed on board the HIV Biology Group led by Professor Stuart Turville. On the scientific front, our research continued to reach new highs. Treatment optimisation work made great progress through the ENCORE and SECOND LINE studies, and TVRP's role as an International Co-ordinating Centre for the INSIGHT network, a major collaboration for the conduct of large strategic trials in HIV disease, means we are active in more

than 100 sites internationally. The number of countries where SEPPH's expertise in evaluating HIV programs and epidemics has expanded to include eight countries of Eastern Europe; and an exciting new behavioural study, *Opposites Attract*, will provide data on serodiscordant couples to complement earlier groundbreaking work in HEPP. Recent results on pre-exposure prophylaxis suggest that 2011 may have also been the year of the HIV prevention revolution.

Through the year I was honoured with many requests to speak publicly. One of the most receptive audiences was at the UNSW Town and Gown event, which brings together the academic community with alumni and friends of the University.

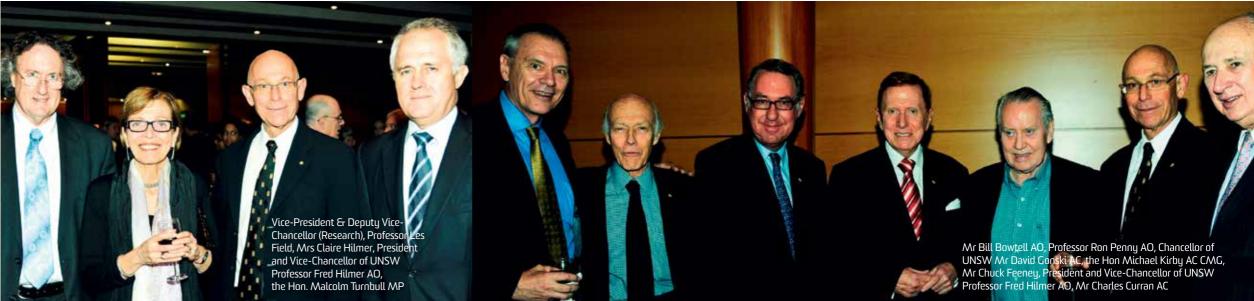
We began 2011 with 170 staff and finished it with almost 200 staff, 285 publications and 211 separate ongoing studies. We face the future with a new name, optimism about our ongoing research program, plans for colocating our staff on the UNSW Kensington campus, and building a new outreach premises in Darlinghurst – a partnership with St Vincent's Hospital to ensure continuation of research with the communities who form the bulk of our volunteers in clinical and epidemiological studies.

David Cooper

THE KIRBY INSTITUTE LAUNCH 4 APRIL 2011

"Michael's well known and enduring support for health and human rights, both at home and internationally, fits perfectly with our research focus on those vulnerable communities who make up our patient and client populations, the often disadvantaged groups most likely to suffer the infectious diseases which are the core of our work."















RESEARCH PROGRAMS AND PROGRAM HEADS AT THE KIRBY INSTITUTE

In April 2011, the Kirby Institute was relaunched after 25 years as the National Centre in HIV Epidemiology and Clinical Research, or NCHECR. Over that time, the organisation moved from its early roots as a leader in HIV research to expand the range of work from the prevention and treatment of HIV/AIDS and viral hepatitis to a range of related sexually transmissible infections and blood-borne viruses. 2011 also saw the addition of a new group, the Justice Health Program, headed by Professor Tony Butler.

Led by Professor David Cooper, the Kirby Institute has a leading presence in Australia coupled with a strong and increasing presence in South East Asia. Australia's national interest is served where it intervenes in health issues in its region by leading in developing and delivering solutions.



The Director
Scientia Professor David
A. Cooper AO FAA was
the inaugural director of
the National Centre in HIV
Epidemiology and Clinical
Research from its inception
in 1986 and he remains the
primary driver behind the
success of the Kirby Institute.
Professor Cooper is an
internationally eminent and

respected HIV clinical scientist. In addition to his enormous clinical experience, Professor Cooper is widely recognised for his contributions to the field in HIV immunology and infectious diseases. This is further exemplified by his role in supporting the disciplines of virological, immunological, pharmacological and neurological research in one organisation. He has assembled a world-class research team at the Kirby Institute that influences and supports activities globally through extensive national, regional and international collaborations.

THE THERAPEUTIC AND VACCINE RESEARCH PROGRAM

The Therapeutic and Vaccine Research Program (TVRP) conducts a range of clinical trials designed to assess the effectiveness of new HIV therapies or candidate vaccines. These studies often provide not just biomedical data but also evidence of the impact of policy practice and therapeutic guidelines, in both resource-rich and resource-limited settings. TVRP staff provide leadership through the program's role as an

International Co-ordinating Centre for the INSIGHT network, a major international collaboration for the conduct of large clinical endpoint strategic trials in HIV disease which has more than 300 sites in 30 countries.

The SECOND-LINE study completed enrolment in September 2011. This clinical trial was designed to investigate the safety and efficacy of ritonavir-boosted lopinavir and 2-3N(t)RTI backbone in participants virologically failing first-line therapy. The study is being conducted in 49 sites across 18 countries. At conclusion of the recruitment phase, 568 participants were randomised. An interim analysis was performed when half the participants had completed 24 weeks of follow-up. This interim was reviewed by an independent DSMB and their recommendation was to continue the study as planned. We are anticipating completion of the week 48 visit in September 2011.

The ENCORE1 study commenced in 2011, with all sites opening for recruitment in the period between August and December. Toward the end of the year, over half the required participant population had been recruited with March 2012 estimated as the completion date for enrolment. Valuable substudies of dried blood spots for analysis of efavirenz concentrations and HIV viral load, vitamin D monitoring and mid-interval monitoring of efavirenz pharmacokinetics within the main protocol; intensive pharmacokinetics and CNS sub-studies have also commenced.

In addition, the MARCH study contracts between UNSW and Pfizer/ViiV Healthcare were finalised in April 2011 and a network of 63 clinical centres around the world commenced activities to start the trial. The first patients were randomised in September. This trial required the establishment of an international QA/QC programme to ensure execution of proviral testing of HIV DNA to determine virus tropism to the highest possible standards. TVRP personnel collaborated with colleagues from the Immunovirology and Pathogenesis Program and the National Reference Laboratory to establish and run this complex program. We anticipate completion of enrolment into this trial during the second quarter of 2012.



Professor Sean Emery is head of the Therapeutic and Vaccine Research Program. He has been at NCHECR for 18 years and is a recognised expert in HIV therapeutic research and the design, conduct and reporting of clinical trials.

THE BIOSTATISTICAL AND DATABASE PROGRAM

The Biostatistics and Databases Program has a collaborative biostatistical research role across many of the Kirby Institute's programs and activities. A key activity in this area in 2011 has been extending the available database technologies to suit a range of needs, from the highest specification web-based databases through to highly cost-efficient stand-alone databases suitable for developing countries. This extension of database expertise will allow the program to service better the needs of the Kirby Institute into the future.

The program had important grant success this year with the renewal of five-year NIH funding through the International Epidemiological Databases to Evaluate AIDS (IeDEA) program. This funding underpins much of the program's work in HIV observational cohorts. Exciting developments include the collection of serious non-AIDS clinical endpoints, such as myocardial infarctions and non-AIDS cancers in adult HIV-positive patients in Asia. An expanded-access antiretroviral treatment scheme for Medicare-ineligible patients in Australia, involving all seven pharmaceutical companies active in HIV care, was developed in collaboration with the National Association of People Living with HIV/AIDS (NAPWA), with patient follow-up and outcomes to be collected via the Australian HIV Observational Database.

2011 was an active year for research outputs. Mathematical modelling underpinned a submission to the Pharmaceutical Benefits Advisory Committee for public funding of HPV vaccination of boys. Statistical geospatial models identified hot spots of HIV infection in South Africa. Linkage of HCV, HBV and HIV notifications in New South Wales with hospitalisation, cancer and death indexes identified a growing burden of liver disease. Cohort data showed that HIV-positive patients who stopped smoking reduced their risk of cardiovascular disease. Statistical analyses of surveillance data showed that HIV-transmissions through injecting drug use had been effected less by combination antiretroviral treatment, and tended to be diagnosed later, than other HIV-exposures. Immunological responses in patients who started treatment at high CD4 counts were analysed, an issue highly relevant to current debates about when to start treatment.



Professor Matthew Law, head of the Biostatistics Program, has been at the Kirby Institute for 18 years. His group plays a key support role to other academic programs but has also independent research activities in cohort studies, mathematical modelling, linkage studies and complex statistical analyses.

THE SURVEILLANCE AND EVALUATION PROGRAM FOR PUBLIC HEALTH

The Surveillance and Evaluation Program for Public Health (SEPPH) monitors the pattern of transmission of HIV, viral hepatitis, specific sexually transmissible infections, transfusion transmissible infections and trachoma in Australia, assesses past and expected epidemic trends, and evaluates the epidemiological impact and cost-effectiveness of public health intervention strategies. SEPPH also evaluates HIV programs and epidemics and develops quantitative epidemic evaluation research capacity in Asia and Eastern Europe.

Blood-borne viral and sexually transmission infections (STIs) surveillance activities are conducted in collaboration with the Australian Commonwealth Government Department of Health and Ageing, State and Territory health authorities and collaborating networks. Analyses and interpretation of recent trends in new diagnoses of HIV, viral hepatitis and STIs, and estimates of prevalence and incidence in key population subgroups are published in our Annual Surveillance Report. Public release datasets on new HIV and AIDS diagnoses are also available for download. SEPPH is a collaborating unit of the Australian Institute of Health and Welfare; and in collaboration with the Australian Red Cross conducts surveillance of transfusion transmissible infections among blood donors in Australia. In collaboration with the Office of Aboriginal and Torres Strait Islander Health of the Department of Health and Ageing and other Kirby Institute Programs, SEPPH coordinates national surveillance and reporting of trachoma among Aboriginal communities.

SEPPH carries out extensive mathematical modelling and economic research in order to evaluate public health programs, understand drivers of epidemic trends, project future epidemic trajectories, and assess the epidemiological and economic impact of public health prevention strategies. This research is focused on HIV, viral hepatitis, and sexually transmissible infections in Australian populations and on HIV/AIDS in Asia and Eastern Europe.

In 2011, SEPPH released a number of Surveillance Reports, including the fifteenth annual review of available surveillance data pertaining to the occurrence of 'HIV, viral hepatitis and sexually transmissible infections in Australia', and the fifth annual 'Blood-borne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander people: Surveillance and Evaluation Report'. Surveillance activities and analyses of transfusion transmissible infections in Australia were conducted which led to the first-annual 'Safe blood – a focus on education, epidemiology and testing: transfusion-transmissible infections in Australia 2011 Surveillance Report'. Cross-program contributions resulted in the establishment of the National Trachoma Surveillance and Reporting Unit at UNSW and the release of the first UNSW-produced trachoma report, the Australian Trachoma Surveillance Report 2010. Further cross-program collaboration resulted in the release of the NSW HIV modelling and acceptability report, and participation in the development of the National BBV and STI Surveillance and Monitoring Plan which is being followed by SEPPH's production of a new report for monitoring progress against the latest blood-borne viral and STI National Strategies.

Internationally, SEPPH strengthened networks with the Vietnam Administration for AIDS Control and the Ministry of Health in China. SEPPH has also been developing country-specific models for Indonesia, Cambodia, Armenia and Papua New Guinea for the interpretation of public health surveillance data. Modelling and evaluation reports for Vietnam and Indonesia were produced with guidance for further in-country analysis. The program's experience evaluating the cost-effectiveness of needle-syringe exchange programs in Australia has been applied to a collaboration with 13 countries in Eastern Europe and Central Asia through UNAIDS.

Drawing from data and experiences from eight countries in East Asia & Pacific, Europe and central Asia and the South Asia Region, SEPPH advanced its international expertise, working in collaboration with the World Bank Group, to commence a project to contribute to the improvement of the effectiveness and efficiency of HIV prevention responses in Asia's concentrated HIV epidemic settings.



Associate Professor David Wilson, head of the Surveillance and Epidemiology Program for Public Health, has presided over a restructure and expansion of our surveillance work in the few short years since he joined us. His program has extended its standing monitoring of HIV, viral hepatitis, and specific sexually transmissible infections to other surveillance activities as well as to

the assessment of past and expected epidemic trends, and evaluates the epidemiological impact and cost-effectiveness of public health strategies in Australia and overseas.

THE IMMUNOVIROLOGY AND PATHOGENESIS PROGRAM

The activities of the IVPP during 2011 can be divided into three categories. All involve substantial, daily interaction with the Immunovirology group at St Vincent's Centre for Applied Medical Research, which is collocated with IVPP. In 2011 a substantial proportion of laboratory-based activity was directed towards providing routine or semi-routine laboratory support, essential for the successful conduct of clinical trials and epidemiological studies conducted by the Kirby. This included specimen processing and conduct of specialised immunological and virological assays. This aspect of the laboratory continued to perform well in external QA programs. Training materials developed by this section of the laboratory were adopted by the IVRN as part of their induction package for new staff at laboratories participating in their Australia wide network. The laboratory acted as the central global laboratory for flagship Kirby studies such as SECOND-LINE, Encore, MARCH, and ATAHC II. New databases and collaborative strategies were developed to streamline the conduct of these large complex trials. Further, the laboratory conducted extensive optimisation and verification studies of RNA- and DNA-based viral tropism assays that were then successfully transferred to the NSW State HIV Reference Laboratory at St Vincent's. During 2011 the RNA assay was used for routine care and in 2012 the DNA will be used both routinely and to screen patients for the MARCH protocol.

The second critical component of the program in 2011 was the conduct of clinical trials and natural history studies in pathogenically informative populations of patients with HIVinfection such as those identified with primary infection and long term non-progressors. In 2011 the three-year pathogenesis study, PINT, conducted in collaboration with the TRVP, was completed. The Primary Infection and LTNP cohorts continued to provide valuable material for productive collaborations particularly with Stephen Kent and Damian Purcell's groups (Melbourne Uni); Martyn French's group (Royal Perth); The Alfeld and Brumme groups at the Ragon Institute in Boston; groups lead by Victor Appay and Brigitte Autran in the Département d'Immunologie, Hôpital Pitié-Salpêtrière, Paris; and with the European collaborative effort CASCADE. In addition these were used for a range of studies conducted within the program. The insights gained from these studies will hopefully impact on immunotherapeutics and vaccine design.

In addition senior scientists and academics within the program were responsible for their own research projects on pathogenesis and development of therapeutics. In 2011 patented simple T cell assays developed within the laboratory were tested in the field in

two separate studies conducted in Sydney and in Bangkok though HIV-NAT. These studies provided proof of principal, demonstrating that these prototypic assays perform at least as well as established assays for the diagnosis of latent tuberculosis. The analysis of samples collected from the first year of the PINT study allowed new insights into dynamics of establishment and maintenance of the viral reservoir. While the samples from this trial are a major focus for future and on going work, further insights into the mechanisms underlying the maintenance of the reservoir are being sought from the elucidation of the relative infection rates and phylogenetic profiles of virus-infected, antigen-specific CD4+ T cells. This sophisticated work is only possible using the assays developed within the laboratory. During 2011 further work on our unique siRNAs that induce prolonged transcriptional gene silencing of HIV-1 provided very encouraging data regarding the high specificity of these constructs, while elegant molecular and confocal microscopy further elucidated the mechanism of action of these constructs. The first in vivo trials of these compounds commenced with the conduct of small animal studies in

A major boost for the program and the Institute in 2011 was the recruitment of Professor Stuart Turville and his HIV Biology Group. This group is primarily involved in basic HIV research, with specific projects on HIV entry, viral spread between key cell types of the immune system and the development of novel imaging techniques. While the work seeks to elucidate basic scientific mechanisms, the assays used and novel reagents generated are applicable to HIV translational research and gene therapy. To study the virus entering cells, Professor Turville and his group have developed novel recombinant HIV virions that can package fluorescent proteins and/or enzymes (essentially microscopic tracking devices) in several key parts of the virus. Using this novel approach, the virus can be followed as it attaches to a cell and during subsequent infection. The recent installation of a Deltavision Elite microscope in the St Vincent's AMR PC3 laboratory enabled the imaging of infections in live cells over time. Such technology within PC3 containment is the first of its kind in NSW and one of two facilities nation-wide.

In 2011 the work of the HIV Biology group has focused on the dynamics of infected dendritic cells and how they can pass virus on to the major HIV targets, CD4 T cells. This work has lead to the observation, for the first time, of viral highjacking of long finger-like protrusions known as filopodia, which are normally expressed on dendritic cells, as they providing the ability to rapidly probe the surrounding environment. Typically for a dendritic cell, their major role is communication of the immune response. This system maybe corrupted in HIV infected dendritic cells and used to transfer the virus to T cells, rapidly expanding the infection. An understanding of these basic processes is likely to contribute to microbicide and vaccine development

2011 marked the passing of Dr Linda Gelgor who died of pancreatic cancer. Linda had been with the IVPP since 2006 after moving from Sydney University. Her main responsibilities were the conduct of the program's natural history studies and clinical trials. She played a major role in the successful conduct of the Phaedra primary infection cohort, was responsible for the reinvigoration of the LTNP cohort and set up the PINT trial. All in the program will remember her for her enthusiasm, her quiet but determined manner and her unfailing good humour and courage.





head of the Immunovirology and Pathogenesis Program, and works closely at a laboratory level with colleagues from SVH. This program gives lab support across the organisation, as well as conducting world-class research, presently focussed on the design and development of novel assays, and the study of micro RNAs, fine mapping of T cell fn, and the transcriptional gene silencing of HIV by siRNA. **Professor Stuart Turville** Dr Turville's research career started with a BSc Hons (First class and John Elliot Prize for Best Thesis in Animal Biology) and followed with an Australian Postgraduate Award for PhD studies at the University of Sydney on the mechanism of HIV transmission in dendritic cells.

Professor Tony Kelleher is

THE HIV EPIDEMIOLOGY AND PREVENTION PROGRAM

The HIV Epidemiology and Prevention Program (HEPP) conducts research into the transmission and prevention of HIV and sexually transmissible infections (STIs), and on the natural history of HIV. Our work is multidisciplinary and collaborative. We work in partnership with communities most affected by HIV, particularly the gay community and those people living with HIV. We work across the spectrum of biomedical, behavioural and structural prevention, because effective HIV prevention acknowledges the complexities of everyday life for at-risk communities. Our work includes behavioural risk surveillance, studies of risk behaviour, and studies of use of biomedical preventive interventions. Researchers in HEPP conduct a range of work on the intersection of infection, immunity and cancer to inform our knowledge of how we might prevent cancer in people with HIV. A particular focus is the prevention of anal cancer in gay men.

Highlights of 2011 for the HIV Epidemiology and Prevention Program include the commencement of the NHMRC-funded Opposites Attract project. Opposites Attract is a five year cohort study of HIV transmission in HIV serodiscordant gay couples. The study will examine the effect of HIV treatment and HIV viral load on sexual risk behaviour and the rate of HIV transmission. The study aims to recruit 240 couples and follow them for up to four years, with data collection on risk behaviour, HIV treatment, HIV viral load, and intercurrent sexually transmitted infections. It is one of very few studies globally examining the effect of HIV treatment on HIV transmission in homosexual men.



Professor Andrew Grulich heads the HIV Epidemiology and Prevention Program with a focus on cohort studies in at risk populations linked to behavioural and biomedical prevention of HIV and sexually transmitted infections. These types of research are central to the evaluation of biomedical preventions strategies such as vaccines, microbicides and chemoprophylaxis. Professor

Grulich is also a world authority on the serious emerging issue of cancer in HIV. He has been at the Kirby Institute for 18 years.

THE VIRAL HEPATITIS EPIDEMIOLOGY AND PREVENTION PROGRAM

The Viral Hepatitis Epidemiology and Prevention Program strives to conduct rigorous multidisciplinary research that is ethical, innovative and makes a difference. We are proud of, and committed to, working in partnership with affected communities in Australia and internationally to achieve our goals. Key aims of the program are to initiate and undertake epidemiological, social and behavioural research examining viral hepatitis and other blood-borne infections in vulnerable populations, including people who inject drugs (PWID) and female sex workers (FSW); design and implement studies of behavioural and biomedical prevention interventions designed to prevent viral hepatitis and other infectious diseases in vulnerable populations; conduct and support surveillance activities including monitoring trends in blood-borne virus incidence, prevalence and risk behaviour among PWID; translate research outcomes into evidence-based public health practice and build capacity for research, surveillance and harm reduction within Australia and the region through the provision of training and technical assistance.

Highlights of 2011 for VHEPP included the publication of a special National Data Report marking 16 years of data from the Australian Needle and Syringe Program Survey (ANSPS), Australia's internationally recognised surveillance system for monitoring the prevalence of anti-HIV and HCV and associated risk factors among PWID. Other highlights included the award of a UCSF NIH subcontract for the International Collaboration of Incident HIV and hepatitis C in Injecting Cohorts (InC3). This unique, multidisciplinary project combines data from cohorts of PWID around the globe in order to conduct studies of risk, incidence and the natural history of acute HIV and HCV infection. 2011 also saw the completion of HAVIT, our NHMRC-funded two-arm randomised trial examining the efficacy of financial incentives in increasing hepatitis B immunisation completion in PWID. Intention-totreat analyses indicated that a significantly higher proportion of participants allocated to the incentive condition completed the vaccine series. Also in 2011, recruitment and follow-up continued in 2011 for the Hepatitis Incidence and Transmission Study – community (HITS-c) with more than 150 anti-HCV negative PWID enrolled and 17 incident cases observed.

International projects in 2011 included ongoing studies of young FSWs in Cambodia with collaborators from UCSF, NCHADS and the Cambodian Women's Development Association; a study examining the social and environmental influences on injection drug use with collaborators at the British Columbia Centre for Excellence in HIV/AIDS in Vancouver; and completion of a cluster randomised trial of non-pharmaceutical protection against influenza in Vietnam, in collaboration with the School of Public Health and Community Medicine at UNSW.



Professor Lisa Maher is head of the Viral Hepatitis Epidemiology and Prevention Program and an NHMRC senior research fellow. She conducts ethnographic, epidemiological and clinical research with a focus on interventions designed to prevent infectious diseases in vulnerable populations, including people who inject drugs and female sex workers.

THE VIRAL HEPATITIS CLINICAL RESEARCH PROGRAM

2011 has been an exciting year in hepatitis C research with the licensing of two new direct-acting antiviral (DAA) agents for the treatment of chronic hepatitis C infection and many more new therapies in various stages of development. The Viral Hepatitis Clinical Research Program, established in 2003, continues to demonstrate national and international leadership in hepatitis C research, particularly in key affected communities such as injecting drug users and HIV-coinfected populations.

The program has three main areas. Clinical research including clinical trials forms the main part of the program's work. The second component is molecular virology and host genetic research using samples from HepBank, a recently established viral hepatitis sample repository. The third component is epidemiological research through data linkage studies and mathematical modelling.

In addition to chronic hepatitis C research, the program also has interest in the natural history of newly acquired hepatitis C (HCV) and treatment of acute and chronic HCV particularly in the setting of injecting drug use and a strong interest in HIV/HBV coinfection. The program's laboratory research focuses on superinfection/mixed infection, protective immunity, host genetics, phylogenetics and transmission dynamics and the incidence and prevalence of viral mutations that impart resistance to the new therapies. The Viral Hepatitis Clinical Research Program liaises with all other programs within the Kirby Institute, as well as with hepatologists, infectious disease physicians and primary care networks nationwide.

The program plans to continue to design and coordinate multicentre clinical research trials in viral hepatitis and expand the research networks in Australia, Asia and internationally. Additionally, an expansion of the sample repository and molecular virological research continues. The program is also interested in developing and customising software applications that enhance both clinical and laboratory research.

Highlights of 2011 include two UNSW Major Research Infrastructure and Initiative grants, one to develop Labkey, an online database to enhance laboratory research and the second to purchase a portable FibroScan (non-invasive method for evaluating liver fibrosis) machine for research. The program was awarded two grants from Merck Sharpe and Dome.

The first to establish and evaluate the impact of a healthy liver campaign at opiate pharmacotherapy therapy clinics (Healthy Liver Campaign) and the second to coordinate a large international multicentre clinical trial of response guided treatment for chronic hepatitis C genotype 2/3 infection in current injection drug users (ACTIVATE). The program was also part of a successful five-year R01 NIH grant application for the International Collaboration of Incident hepatitis C in Injecting



Cohorts (InC3) Collaborative Group. The five-year, NIH-funded study of treatment for recently acquired hepatitis C infection (ATAHC II) study commenced recruitment at several sites (see Research studies). Professor Greg Dore was awarded another five-year NHMRC Practitioner Fellowship and Dr Jason Grebely was awarded a NHMRC Career Development Fellowship. **Professor Greg Dore** heads the Viral Hepatitis Clinical Research Program that investigates therapeutic strategies for people infected with hepatitis B or C and particularly those for acute and chronic hepatitis C among injecting drug users. He has been at the Kirby Institute for more than 17 years.

THE SEXUAL HEALTH PROGRAM

The Sexual Health Program leads and participates in research into the epidemiology, surveillance, microbiology, clinical management, and prevention of sexually transmissible infections (STIs), including, but not limited to, chlamydia, syphilis, gonorrhoea, human papillomavirus infection, herpes simplex virus infection, and HIV infection. Our program is also involved in research into the behaviour and sexual health of priority populations for STI control such as youth, gay men, sex workers, Aboriginal people, prisoners and travellers.

The Sexual Health Program works closely with several other programs within the Kirby Institute. The program also collaborates with a national network of 25 specialist sexual health services; research laboratories in Sydney, Melbourne, Brisbane and PNG; the School of Population Health at the University of Melbourne; the Burnet Institute in Melbourne; and the Menzies School of Health Research in Darwin. Methodologies used in the program's research range from descriptive epidemiology with novel analytical techniques, molecular epidemiology, enhanced surveillance strategies, data linkage studies, social and behavioural research, test evaluations, detecting antimicrobial resistance, evaluating and improving health care delivery, legal and policy research, anthropology, and biomedical prevention.

2011 was another busy and productive year for the sexual health program. We continue to steer the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS), which uses routine clinical data to evaluate clinical service strategies. Ninety one clinical sites participate in ACCESS, each providing a core set of routinely collected data in de-identified line-record format which are extracted on a six-monthly basis. The ACCESS network provided the first reliable means of interpreting trends in national rates of chlamydia diagnoses. In addition a national genital warts surveillance system, based on the ACCESS approach, detected a population-level reduction in warts following the introduction of the national HPV vaccination program. The sexual health program has also continued involvement in the Australian Chlamydia Control Effectiveness Pilot (ACCEPt), lead by Associate Professor Jane Hocking from the University of Melbourne. In 2011, a significant milestone was reached with more than 50 towns being recruited to the study. To date, ACCEPt is the first study to assess the impact of chlamydia screening on prevalence and/ or the incidence of chlamydia sequelae in a population sample using a randomised controlled study design. The NSW Ministerial Advisory Committee on HIV and STIs (CAS) Health Promotion Sub-Committee commissioned us to conduct literature review on chlamydia in young people in NSW, to inform an action plan being prepared by the Chlamydia Working Group. The review examined various aspects of chlamydia including epidemiology, sequelae, interventions to increase testing and retesting, health promotion interventions, and level of coverage required to make an impact. The review was completed in November.

Continuing our commitment to innovative research aimed at improving testing for STIs, this year also saw the commencement of a number of new studies. The Chlamydia re-test trial (REACT) was funded by the NHMRC STI Program Grant. REACT uses

a randomised controlled design to assess the effectiveness of coupling SMS reminders with home-based self-collected samples in improving the uptake of Chlamydia re-testing. REACT is innovative as few trials have evaluated strategies to increase re-testing and none have combined the two strategies. Regular testing for HIV and other STIs in high risk populations is recognised as a key public health control strategy; NSW Health has funded the eTEST intervention, which is designed to increase the frequency of HIV/STI screening in 'high risk' MSM through a novel multifaceted intervention using decision support software coupled with other evidence-based strategies. This project will be assessed over a two-year period and involves 10-15 general practice clinics in Sydney that see a high case load of men who have sex with men.

Initiatives to evaluate novel approaches to diagnostic testing that are aimed at improving access and uptake of treatment have been an important focus of work this year. Rebecca Guy was awarded funding by the NHMRC to support the conduct of a world first trial of using point-of-care testing for Chlamydia trachomatis and Neisseria gonorrhoeae using a novel molecular-based point of care testing system. The trial will use a crossover, cluster randomised design in 12 remote Aboriginal communities. It is a partnership between the Kirby Institute, other research organisations, state governments, and community Aboriginal health organisations in WA and QLD with field evaluations due to begin in 2012. The program was also were involved in the multi-centre (Sydney & Melbourne, Australia and Goroka, PNG) laboratory-based evaluation of six rapid point of care tests for syphilis. Damian Conway also commenced post doctoral studies exploring various aspects of Rapid HIV testing among MSM clients and staff at public sexual health clinics in Sydney.

Basil Donovan and colleagues made a successful pitch for Sydney to host the 2015 International Society for STD Research (ISSTDR) conference. The bid was remarkable for the fact that the ISSTDR Conference has never been held outside North America and Europe.



Professor Basil Donovan, head of the Sexual Health Program, has spent decades working in every aspect of sexual health. His program undertakes research and surveillance designed to inform strategies to reduce the impact of STIs and HIV infections and to conduct trials to directly reduce the impact of STIs]

THE PUBLIC HEALTH INTERVENTIONS RESEARCH GROUP

The Public Health Interventions Research Group undertakes a diverse range of projects that focus on the evaluation of strategies to prevent infectious disease. We collaborate extensively, both within the Kirby Institute and externally, and emphasise research that benefits the health of disadvantaged populations in Australia and the Asia-Pacific Region. Much of our work also has a strong capacity-building component. The group is involved in projects related to the control of HIV, sexually transmitted infections, viral hepatitis, tuberculosis, scabies and trachoma. Countries of activity include Australia, Papua Guinea, Indonesia, Cambodia and Fiji.

2011 saw the commencement of a number of record linkage studies focusing on infections and their sequelae in Australian

adults and also the completion of an Australia-wide survey on HPV vaccination conducted in collaboration with the Victorian Cytology Service. In conjunction with the SEPPH and ATSI programs, the first annual trachoma surveillance report from the Kirby was also released. The project evaluating interferon gamma release assay for diagnosis of children with suspected tuberculosis in PNG was completed in 2011. Trainees from Indonesia and Cambodia graduated in September 2011 from the Field Research Training Program (FRTP), part of the HIV Consortium. This is the first cohort of trainees to complete from the program.

Collaborations with Papua New Guinea have strengthened during 2011, with Andrew Vallely establishing a new Sexual and Reproductive Health Unit during his posting to the PNG Institute of Medical Research, as well as securing funding for new research on human papillomavirus and cervical cancer prevention.



Bradley Mathers also joined the program and spent two months in Papua New Guinea as a technical advisor to the HIV and STI surveillance program of the National Department of Health.

Professor John Kaldor is an NHMRC Senior Principal Research Fellow and Professor of Epidemiology.

THE ABORIGINAL AND TORRES STRAIT ISLANDER HEALTH PROGRAM

The Aboriginal and Torres Strait Islander Health Program was established in 2007. The program works collaboratively across sectors to close the gap in health disparity between Aboriginal and Torres Strait Islander and non-Indigenous people, with a key focus upon sexual health and blood borne viruses. The particular objective of the program is to enhance the capacity of Aboriginal and Torres Strait Islander communities in responding to STIs, HIV and viral hepatitis.

The program has four main domains of activity that aim to increase the level of Sexual Health and BBV knowledge within Aboriginal and Torres Strait Islander communities:

- Research: To conduct research in partnership with Aboriginal and Torres Strait Islander communities in the areas of STIs, HIV/AIDS and other BBVs;
- Surveillance: To support existing surveillance activities and to identify innovative new areas and methods of surveillance that will benefit Aboriginal and Torres Strait Islander communities;
- Capacity Building: To work with existing health services to enhance the capacity of existing systems and workforces in the areas of sexual health and BBV service delivery; research; and surveillance;
- Information dissemination through the development of a comprehensive clearinghouse of Aboriginal and Torres Strait Islander Sexual Health initiatives including surveillance and research.

The program works closely with the National Aboriginal Community Controlled Health Organisation, its State and Territory based Affiliate organisations and Aboriginal Community Controlled Health Services to make a difference to the health of indigenous communities.



2011 saw the release of the fifth annual Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander people: Surveillance and Evaluation Report. In addition, two major studies began in Queensland: one of HBV in the Torres Strait Islands and the other designed to recruit 300 Aboriginal and Torres Strait Islander people

who inject drugs. During 2011, Australia's largest randomised cluster trial ever to be conducted in Aboriginal health, named STRIVE, completed baseline prevalence studies for bacterial STI in 67 remote communities and first-year sites were initiated to the intervention arm. Work progressed through 2011 on SHIMMER, a quality improvement project in Aboriginal Community Controlled Health Services in NSW; REACCH, a Centre for Clinical Research Excellence in Aboriginal Community Controlled Health, and GOANNA, a national survey of young Aboriginal and Torres Strait Islander people regarding STI and BBV knowledge risk behaviour and health service access. The program was also awarded an NHMRC Project Grant to trial the use, effectiveness and feasibility of STI point of care tests in remote Aboriginal communities.

Mr James Ward, head of the Aboriginal and Torres Strait Islander Health Program, brings to this program many years of experience in indigenous health. His program works collaboratively across sectors to address the disparity in health outcomes for indigenous peoples in prevention and treatment of sexually transmitted infections and blood-borne viruses, through research, surveillance, capacity building and information dissemination.

JUSTICE HEALTH RESEARCH PROGRAM

The Justice Health Research Program was established at the Kirby Institute in January 2011. Designed to complement the KI approach to health and human rights, particularly among marginalised populations, the program has a particular focus on Australia's offender population. The Justice Health Research Program undertakes research into a broad range of health issues affecting offender populations including communicable diseases, access to hepatitis C treatment in prison, Aboriginal health, mental health, tobacco smoking, impulsivity, and risk behaviours such as alcohol use.



Professor Tony Butler is the inaugural head of the Justice Health Research Program. He has researched health issues in the criminal justice system for more than a decade. Professor Butler's research focus includes the surveillance of blood-borne viruses and sexually transmissible infection among prison entrants nationally, work on establishing the National Prisoner Health

Indictor Project, conducting Australia's largest epidemiological survey of prisoners' mental health, research into traumatic brain injury among prisoners, and a key member of a group undertaking research into smoking cessation among prisoners.

NATIONAL SURVEILLANCE CO-ORDINATION AND INFORMATION DISSEMINATION

Support for national surveillance committees

The National Blood-Borne Viruses and Sexually Transmissible Infectious Surveillance Committee, which had co-ordinated surveillance for HIV, viral hepatitis and sexually transmissible infections in Australia from 2007, was dissolved during 2011. A new committee, the National Blood-Borne Virus and Sexually Transmissible Infection Surveillance Sub-Committee of the Communicable Diseases Network Australia (CDNA) was established with Dr Christine Selvey as its chair and the Surveillance and Evaluation Program for Public Health at the Kirby Institute providing the secretariat function. The committee met for the first time in Canberra in September 2011, where the terms of reference of the new committee were reviewed. The Annual Surveillance Report Advisory Committee provided guidance on the content of the report including the new areas of surveillance and new analyses of previously available datasets. The Advisory Committee aims to meet on at least two occasions during a calendar year, with proposals for new areas of surveillance or new analyses of data being discussed at the first meeting and progress towards the final report being reviewed at the second meeting. Status: ongoing

Personnel: Ann McDonald, Melanie Middleton, Tarana Lucky, Libby Topp, Handan Wand, Basil Donovan, John Kaldor, David Wilson

Collaborators: State and Territory health authorities; Australian Government Department of Health and Ageing; Australian Paediatric Surveillance Unit; Australian Institute of Health and Welfare; networks involved in surveillance for HIV, viral hepatitis and sexually transmissible infections.

Funding: Commonwealth Department of Health and Ageing **Location:** Surveillance and Evaluation

Program for Public Health

HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report

Detailed analysis and interpretation of national surveillance data on HIV, viral hepatitis and sexually transmissible infections are published in HIV, viral hepatitis and sexually transmissible infections in Australia Annual Surveillance Report 2011.

Status: Ongoing. The *Annual Surveillance Report* was published for the fifteenth successive year.

Personnel: Ann McDonald, Melanie
Middleton, Libby Topp, David Wilson
Collaborators: State and Territory
health authorities; Australian Paediatric
Surveillance Unit; Australian Institute of
Health and Welfare; networks involved
in surveillance for HIV, viral hepatitis and
sexually transmissible infections.
Funding: Commonwealth Department of
Health and Ageing

Location: Surveillance and Evaluation
Program for Public Health

National Blood-borne Virus and Sexually Transmissible Infections Surveillance and Monitoring Report, 2011

For the first time, the SEPPH produced the National Blood-borne Virus and Sexually Transmissible Infections Surveillance and Monitoring Report 2011, which measured progress toward the goals of the National Strategies for HIV, viral hepatitis and sexually transmissible infections.

Personnel: David Wilson, Tony Butler, David Cooper, Basil Donovan, Gregory Dore, Sean Emery, Andrew Grulich, Rebecca Guy, John Kaldor, Lisa Maher, Ann McDonald, Joanne Micallef, Melanie Middleton, Kathy Petoumenos, Garrett Prestage, Libby Topp, James Ward

Status: First report expected in early 2012. Funding: Commonwealth Department of Health and Ageing Location: Surveillance and Evaluation Program for Public Health

Australian HIV Surveillance Report

The Australian HIV Surveillance Report provides quarterly updates on the number of new diagnoses of HIV infection and estimates of HIV incidence and prevalence through a network of sexual health clinics. Status: ongoing. The Australian HIV Surveillance Report, in its current format, has been published each quarter from July 1990.

Personnel: Ann McDonald, Melanie Middleton

Collaborators: State and Territory health authorities; Australian Paediatric Surveillance Unit; Australian Institute of Health and Welfare; networks involved in surveillance for HIV, viral hepatitis and sexually transmissible infections Funding: Commonwealth Department of

Health and Ageing
Location: Surveillance and Evaluation
Program for Public Health

Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander People: Surveillance Report 2011

While the pattern of diagnosis of HIV, viral hepatitis and sexually transmitted infections in the Aboriginal and Torres Strait Islander population is reported in the *Annual Surveillance Report*, more detailed analyses and interpretations of national surveillance data for these infections were published separately in a single comprehensive report, for use by organisations and individuals with an interest in the health of Aboriginal and Torres Strait Islander people.

Status: The fifth issue of Bloodborne viral and sexually transmitted infections in Aboriginal and Torres Strait Islander People: Surveillance Report 2011 was released in

September 2011.

Personnel: James Ward, Andrew Nakhla, Ann McDonald, Melanie Middleton Collaborators: State and Territory health authorities; Australian Paediatric Surveillance Unit; Australian Institute of Health and Welfare; networks involved in surveillance for HIV, viral hepatitis and sexually transmissible infections.

Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health and Aboriginal and Torres Strait Islander Health Program

National Prison Entrants' Bloodborne Virus Survey (NPEBBVS) 2010

The NPEBBVS is conducted triennially and involves screening a consecutive national sample of prisoners entering the correctional system in Australia. The survey screens for HIV, hepatitis B, hepatitis C, chlamydia, gonorrhoea, and syphilis. A short behavioural risk factor questionnaire collects information on demographic characteristics, drug use, injecting practices, tattooing, tobacco smoking, and sexual health.

Personnel: Tony Butler
Collaborators: Michael Levy (ACT
Corrections Health); Devon Indig
(Justice Health NSW); Kiah McGregor,
Simon Stafford, Robyn Hopkins (NT
Correctional Services); Alun Richards,
Stacy Kambouris (Queensland Health);
Peter Frost and Karen Harlin (SA Prison
Health Service); Chris Wake and Deborah
Siddall (Tasmania Correctional Primary
Health Services); Fiona MacFarlane
and Michele Gardner (Justice Health

Victoria); and Holly Beasley (WA Corrective Services).

Status: survey report published in 2011 **Funding:** (partial) State and Territories governments

Location: Justice Health Research Program

Merging National HIV and AIDS registries

At the Kirby Institute, new diagnoses of AIDS and HIV infection have been reported to two separate registries, the National AIDS Registry and the National HIV Registry respectively, reflecting the chronology of the first diagnosis of AIDS in Australia in 1982 and the introduction of HIV antibody testing in 1985. While merging the two registries into a single National HIV Registry has been discussed from 1993, a single registry has not yet been established. Following the proposal that AIDS be made non-notifiable, due to the availability of effective antiretroviral treatment for HIV infection leading to HIV infection becoming a manageable long term condition, it is now timely to establish a single National HIV Registry. Records of AIDS diagnosis will be linked to the corresponding record of HIV diagnosis to create as complete and consistent a record of HIV/AIDS diagnosis in Australia as the records will allow.

Status: To be finished by June 2012. **Personnel:** Tarana Lucky, Ann McDonald, Melanie Middleton, Handan

Wand, David Wilson **Funding:** DoHA, ARC

Location: Surveillance and Evaluation Program for Public Health

National Surveillance of Trachoma Australia is the only developed country

where trachoma is still endemic. It occurs primarily in remote and very remote Aboriginal communities in the NT, SA and WA. The Australian Government, in accordance with GET 2020 initiative and the Closing the Gap initiative, through the Improving Eye and Ear Health Services for Indigenous Australians for Better Education and Employment Outcomes measure, committed \$16 million over a four-year period towards eliminating trachoma in Australia. The funding is to be used for improving and expanding screening and control activities, as well as establishing a strong framework for monitoring and evaluation. The National Trachoma Surveillance and Reporting Unit (NTSRU) is responsible for trachoma data collation. analysis and reporting related to the ongoing evaluation of trachoma control strategies in Australia.

Status: The first annual *National* Trachoma Surveillance Report, edited by the NTSRU, was produced in 2011. Personnel: John Kaldor, David Wilson, Bette Liu, James Ward, Tom Snelling, Carleigh Cowling, Gordana Popovic Collaborators: Office for Aboriginal and Torres Strait Islander Health, Department of Health and Ageing; Aboriginal Community Controlled Health Services in the NT, WA and SA; Aboriginal Medical Services Alliance of the Northern Territory; Aboriginal Health Council of South Australia; Country Health South Australia; Health Department of Western Australia; The University of Melbourne; Western Australia Country Health Service;



MICHAEL DOYLE
To orison and back - Aboringal

To prison and back – Aboriginal public health

Michael Doyle is a researcher in the Justice Health Research Program and one of the few Aboriginal people in the country actively researching alcohol and drug rehabilitation for Indigenous men in prison. He undertakes this work as a key team investigator on a National Health and Medical Research Council-

funded Capacity Building Grant titled From Broome to Berrima, Building Capacity Australia wide in Indigenous Offender Health Research'. As a researcher and an Aboriginal man (he is a Bardi man from NW Western Australia), Michael is acutely aware of the disproportionate level of imprisonment of Indigenous people in Australia. About a guarter of the Australian prison population is Indigenous although Indigenous people make up only two to three percent of the population. Aboriginal people comprise 40% of the prisoner population in his home state of Western Australia. "A lot of these guys in prison are aged between 18 and 25," Michael said. "At that age, other people are starting out at university or in their first workplace, but Aboriginal men are in prison - it's not a good start as an adult." While Michael is currently researching alcohol and drug issues, he is also interested in the lifetime effect that imprisonment can have on Aboriginal men. "Almost all prisoners are released back to the community," Michael said, "so what effect does

imprisonment have during formative years on the individual, their family and the wider Aboriginal and Australian community?"

After his graduation later this year, Michael will

After his graduation later this year, Michael will be the first Aboriginal person to complete the Master of Public Health degree at the University of Western Australia. He says that studying in the mainstream has been challenging, particularly as all his previous education as an adult was in Indigenous-specific courses, but he has benefited tremendously from exposure and interaction with other Australian and international students. Michael intends to start a PhD in 2013. "Aboriginal health does not and cannot exist in isolation from the rest of Australian health," he said. "Aboriginal public health can and should benefit from the world-class public health system in this country – we need to know how to use it to our advantage."

Michael Doyle, Grad Dip (Indig H Promotion)
Research Assistant, Justice Health Research Program

National Trachoma Reference Group **Funding:** Commonwealth Department of Health and Ageing (DoHA) **Location:** Surveillance and Evaluation

Australian Red Cross Blood Service 2011

Program for Public Health

Surveillance Report During 2011, the SEPPH collaborated with the Australian Red Cross Blood Service in the publication of the first surveillance report, Transfusion-transmissible infections in Australia 2011 Surveillance Report. This project collects and analyses national donation testing data on Australian blood donors for the period 2005 to 2010. It aims to be a core evidence resource to inform further revision and evaluation of donor selection guidelines and donation testing algorithms in Australia. In addition, the residual risk estimates provide an important tool particularly for clinical stakeholders involved in patient consent for transfusion.

Status: The first annual report on Australian blood donors' surveillance was published late 2011

Personnel: David Wilson, Clive Seed, Sue Ismay, Stephen Wroth, June Lee, Anthony Keller, Claire Styles, Hung-Sing Yang, Ann McDonald, Tarana Lucky

Funding: Australian Red Cross Blood Service, Australian Research Council Location: Surveillance and Evaluation Program for Public Health

DISEASE SURVEILLANCE

HIV

Monitoring cases of AIDS

The past pattern of HIV transmission, the pattern of illness associated with advanced HIV immunodeficiency and the impact of antiretroviral treatment on the pattern of illness is monitored through national AIDS surveillance.

Status: Ongoing. A case for denotification of AIDS has been made by the national bloodborne viral and STI surveillance committee. Until AIDS is denotified, its monitoring continues.

Personnel: Ann McDonald, Melanie Middleton

Collaborators: State and Territory health authorities; Australian Paediatric Surveillance Unit; Australian Institute of Health and Welfare; networks involved in surveillance for HIV, viral hepatitis and sexually transmissible infections

Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Monitoring cases of newly diagnosed HIV infection

The pattern of HIV transmission is monitored through national surveillance for newly diagnosed HIV infection. **Status:** Ongoing

Personnel: Ann McDonald, Melanie Middleton, David Wilson

Collaborators: State and Territory
health authorities; Australian Paediatric
Surveillance Unit; Australian Institute of
Health and Welfare; networks involved
in surveillance for HIV, viral hepatitis and
sexually transmissible infections
Funding: Commonwealth Department of

Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Monitoring diagnoses of newly acquired HIV infection

Diagnoses of newly acquired HIV infection are monitored to provide an indication of the current pattern of HIV transmission in Australia.

Status: Ongoing

Personnel: Ann McDonald Collaborators: State and Territory health authorities; Australian Institute of Health and Welfare; networks involved in surveillance for HIV, viral hepatitis and sexually transmissible infections

Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Monitoring perinatal exposure to HIV

The extent and outcome of perinatal exposure to HIV in Australia is monitored to indicate the rate of and risk factors for mother-to-child HIV transmission, the impact of interventions for reducing the risk of perinatal HIV transmission and HIV prevalence among women of child-bearing age.

Status: Ongoing

Personnel: Ann McDonald **Collaborators:** State and Territory health authorities; Australian Paediatric Surveillance Unit; Australian Institute of

Health and Welfare; networks involved in surveillance for HIV, viral hepatitis and sexually transmissible infections **Funding:** Commonwealth Department of

Health and Ageing
Location: Surveillance and Evaluation
Program for Public Health

Monitoring long-term outcome of newly acquired HIV infection

The long-term outcome of HIV infection is monitored among cases with a known date of HIV acquisition.

Status: Ongoing

Personnel: Ann McDonald
Collaborators: State and Territory

health authorities; Australian Institute of Health and Welfare; networks involved in surveillance for HIV, viral hepatitis and sexually transmissible infections

Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Using CD4 counts at diagnosis to estimate incidence

Status: ongoing

Personnel: David Wilson, Fred Wu, Handan Wand, Ann McDonald, Cliff Kerr, Richard Gray, Lei Zhang, James Jansson, Kylie Mallitt Funding: Australian Research Council Location: Surveillance and Evaluation Program for Public Health

Monitoring HIV transmission through specialised tests for incident HIV infection

Surveillance for newly acquired HIV infection provides a lower bound to the extent of recent HIV transmission, partly due to the requirement for repeated testing within 12 months. Specialised laboratory tests for detecting incident HIV infection may be routinely used to provide a more complete indication of the pattern of recent HIV transmission.

Status: Ongoing

Personnel: Ann McDonald
Collaborators: NSW State Reference
Laboratory for HIV; State and Territory
health authorities; Australian Institute of
Health and Welfare; networks involved
in surveillance for HIV, viral hepatitis and
sexually transmissible infections
Funding: Commonwealth Department of

Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Community-based behavioural and epidemiological surveillance among culturally and linguistically diverse populations

Over the past decade there has been a significant rise in the number of new diagnoses of HIV in Australia, including those with evidence of newly acquired infection. Although the majority of infections still occur among men who have sex with men, the number of HIV diagnoses among heterosexual populations and people from CALD backgrounds has been increasing. The HIV epidemic in NSW is also experiencing a slowly shifting profile such that more infections are occurring among heterosexuals and people from CALD backgrounds. A recent analysis of national HIV surveillance data demonstrated that in

the past ten years the largest numbers of HIV diagnoses due to heterosexual contact were among people from CALD populations. This project will develop enhanced surveillance systems in order to support HIV/STI prevention programs and to provide a comprehensive response to the HIV epidemic among CALD communities in Australia and to develop mechanisms that can measure changes in attitudes and behaviours. This study will potentially contribute to reducing HIV infections among migrant and mobile populations in Australia.

Status: Commenced 2011. Survey drafted in collaboration with the reference group. Ethics application approved.

Personnel: David Wilson, Rebecca Guy,

Elizabeth Mlambo Funding: NSW Health

Location: Surveillance and Evaluation Program for Public Health

VIRAL HEPATITIS

Monitoring cases of newly diagnosed viral hepatitis

The pattern of transmission of viral hepatitis is monitored through national surveillance for newly diagnosed hepatitis B and hepatitis C infection, and newly acquired infections notified to the National Notifiable Diseases Surveillance System. Information on exposure category and country of birth for cases of newly acquired hepatitis B and C notifications is also obtained through NNDSS.

Status: Ongoing

Personnel: Melanie Middleton, Libby

Topp, Lisa Maher

Collaborators: State and Territory health authorities; Australian Government Department of Health and Ageing Funding: Commonwealth Department of

Health and Ageing **Location:** *Surveillance and Evaluation*

Program for Public Health

Monitoring long-term outcomes of chronic hepatitis B and C

Data is obtained from the Australian and New Zealand Liver Transplant Register on number and underlying cause (hepatitis B and C, other) for liver transplants performed.

Status: Ongoing

Personnel: Melanie Middleton, Greg Dore Collaborator: Australia and New Zealand Liver Transplant Register

Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health



RICHARD GRAY

Informing prevention programs from PNG to Eastern Europe

Richard Gray works on practical projects to directly inform STI and HIV policy and programs. Leadership in the development of mathematical models to project epidemic trajectories.

Dr Gray is also a co-investigator on a major project which began this year for members of the Surveillance and Evaluation Program for Public Health. Funded by the World Bank, the task is to evaluate HIV prevention programs in a number of countries in Asia and Eastern Europe. It's part of a large grant for which SEPPH program head, A/Professor David Wilson, is the lead investigator. Dr Gray works on the evaluation of the cost-effectiveness and impact of HIV prevention programs in Thailand, Indonesia and Armenia in Eastern Europe. His work will directly inform the policy and national budgets for HIV in an era when the many countries are losing funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria, itself in budgetary difficulties since the Global Financial Crisis. This loss of international funding has increased the need to ensure that limited resources are allocated for the best possible outcomes. Dr Gray is no stranger to work applicable to countries other than Australia. Twice this year, and on many previous visits, he has been in Papua New Guinea as part of a project to develop the first PNG-specific HIV transmission model. Dr Gray cites the SEPPH philosophy: to evaluate the past, to understand the present and to forecast the future of the HIV epidemic of whichever country they are working on. Dr Gray's PNG model has been implemented as a software package so that all PNG stakeholders can use it to evaluate their prevention programs and relevant health policy, particularly with a view to the potential future impact of the epidemic. "It has also been used to assess the impact of male circumcision as a possible HIV prevention strategy," Dr Gray said. "Along

Richard Gray BSc(Hons), PhD Lecturer, Surveillance and Evaluation Program for Public Health

with other research, my results have lead

directly to policy recommendations in PNG."

SEXUALLY TRANSMISSIBLE INFECTIONS

Monitoring HIV prevalence and incidence through sexual health clinics

HIV prevalence and incidence is monitored among people seen at sexual health clinics who are voluntarily tested for HIV antibody as part of their clinical care.

Status: Ongoing

Personnel: Ann McDonald **Collaborators:** Collaborative group on sentinel surveillance in sexual health clinics Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Monitoring HIV antibody prevalence among prison entrants in Australia

HIV transmission among people entering Australian prisons is monitored through reports received from State and Territory Departments of Corrections of the number of people received into prisons each quarter, the numbers who were voluntarily tested for HIV antibody and the numbers with diagnosed HIV infection.

Status: Ongoing

Personnel: Melanie Middleton, Ann McDonald

Collaborators: State and Territory Departments of Corrections

Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Monitoring HIV and viral hepatitis among blood donors

Newly emerging patterns of transmission of HIV and viral hepatitis are monitored among blood donors, a subgroup of the population at low risk of infection who are compulsorily tested for blood-borne viruses.

Status: Ongoing

Personnel: Melanie Middleton, Ann McDonald

Collaborator: Australian Red Cross Blood Service

Funding: Commonwealth Department of Health and Ageing

Location: Surveillance and Evaluation Program for Public Health

Young Women's Reproductive Health Study

This is a nationally representative survey of young women designed to obtain population-based information on human papillomavirus vaccination coverage, prevalence of genital warts and genital Chlamydia and other issues pertinent to

young women's reproductive health such as pregnancy and contraception. Status: Recruitment underway and due for completion by end of 2011 Personnel: Bette Liu, John Kaldor, Basil Donovan, Julia Brotherton, Marion Saville Collaborators: Victorian Cytology Service; National HPV Vaccination Register Funding: NHMRC Program Grant, Victorian Cytology Service **Location:** Public Health Interventions Research Group

Surveillance of genital warts through Australian sexual health services

A national program of human papilloma virus (HPV) vaccination of Australian teenage girls and young women requires systems that can provide long-term surveillance for trends in HPV-related diseases. Genital warts can only be prevented by quadrivalent vaccine that also covers HPV types 6 and 11. We established a network for enhanced sentinel surveillance of genital warts in eight larger sexual health clinics across Australia.

Status: The first major report was published online in Lancet Infectious Diseases in 2011. Data collection is ongoing.

Personnel: Basil Donovan, Rebecca Guy, Hammad Ali, David Regan, Andrew Grulich, Handan Wand

Collaborator: Christopher Fairley Funding: CSL Biotherapies Ltd Co-location: Sexual Health Program, Biostatistics and Databases Program and HIV Epidemiology and Prevention Program

_____ Australian Collaboration on Chlamydia Enhanced Sentinel Surveillance (ACCESS)

Chlamydia is the most commonly notified infection in Australia and is an important cause of pelvic inflammatory disease, ectopic pregnancy and tubal infertility in women. Chlamydia notifications have been increasing for over a decade. However, the basis of the increase is not well understood. The ACCESS program determines chlamydia testing and positivity rates in priority populations nationally also maintains an ongoing surveillance system. Populations of interest include young heterosexuals, men who have sex with men, sex workers, pregnant women, and Indigenous people. The program involves national collaborative networks of selected services including sexual health clinics, antenatal clinics, Aboriginal Community Controlled Health Services, family planning clinics, general practices and laboratories.

Status: A number of peer-reviewed reports

Personnel: Basil Donovan, Rebecca Guy, Hammad Ali, John Kaldor, Andrew Grulich, James Ward, Handan Wand, David Wilson

Collaborators: Margaret Hellard, Caroline Van Gemert, Mark Stoove, Isabel Bergeri, Jane Goller, Fabian Kong, Anna Bowring, Elizabeth Sullivan, Zhuoyang Li, Wayne Dimech, Marcus Chen, Christopher Fairley, Catherine O'Connor, Bridget Dickson, Lewis Marshall, Tony Merritt, Jane Hocking, Marie Pirotta, Phyllis Lau Douglas Boyle, Helena Britt, Clare Heal, Tom Brett, Caroline Harvey, Robyn Wardle, Kathy McNamee, Lynne Jordan, Anne Stephens, Christine Read, Deborah Bateson, Deborah Wright, Mick Adams, Mark Saunders, Sophie Couzos, Jenny Hunt, Peter Waples-Crowe, David Scrimgeour, Sid Williams, Ana Herceg, Liz Moore, Michael Beckmann, Julie MacPhail Marian Currie, Zena Robinson, Trent Miller, Megan Halliday, Paul Goldwater Funding: Commonwealth Department of Health and Ageing Chlamydia Pilot Program (2007-2010)

Co-location: Sexual Health Program, Public Heath Interventions Research Group, Surveillance and Evaluation Program for Public Health, Biostatistics and Databases Program

HEPATITIS ANALYSIS

Modelling and economic evaluation of hepatitis C epidemic mitigation strategies in Australia

The model is informed by the best available Australian demographic, epidemiological, sexual behaviour and injection behaviour data, treatment rates and published literature. Australian Census Data (2001 and 2006) from the Australian Bureau of Statistics are used to determine specific movement patterns across Statistical Local Areas (SLAs) to simulate geographical migration. Expected outcomes include the number of new HCV infections, liver failure, hepatocellular carcinoma, liver transplant, and liver-related death within the Australian population.

Status: Progressing towards deliverables

in 2012 Funding: National Health and Medical Research Council (NHMRC) Personnel: David Wilson, Rosie Thein, Murray Krahn, Lisa Maher, Greg Dore, John Kaldor, Shamin Kinathil Collaborator: University of Toronto **Location:** Surveillance and Evaluation Program for Public Health

BEHAVIOURAL SURVELLANCE _____

The Australian needle and syringe program survey (ANSPS)

The Australian Needle and Syringe

Program Survey (ANSPS) forms the basis of Australia's sentinel surveillance of HIV and hepatitis C virus (HCV) prevalence and behaviour indices of risk among people who inject drugs (PWID). Since 1995, all clients attending selected Needle and Syringe Program (NSP) sites during a specified one to two week period are asked to complete a brief self administered questionnaire and to provide a capillary blood sample for HIV and hepatitis C antibody testing. Demographic and behavioural data captured include injecting and sexual behaviour, blood borne virus testing, drug treatment and needle and syringe acquisition. A National Data Report, summarising national and state/territory data is produced by VHEPP on an annual basis.

Status: Ongoing

Personnel: Jenny Iversen, Libby Topp, Lisa

Collaborators: Australian State and Territory health authorities; the Collaboration of Australian Needle and Syringe Programs; St Vincent's Centre for Applied Medical Research (AMR) and NSW State Reference Laboratory for HIV at St Vincent's Hospital; Association for Prevention and Harm Reduction Programs Australia (ANEX); Australian Injecting and Illicit Drug Users' League (AIVL); National Drug Research Institute (NDRI); Drug and Alcohol Service, St Vincent's Hospital. Funding: Australian Government Department of Health and Ageing **Location**: Viral Hepatitis Epidemiology and Prevention Program

The Law and Sexworker Health (LASH) Project

It has long been suspected that different legal climates have different health and welfare outcomes for sex workers. As its various jurisdictions have different prostitution laws, Australia is an ideal country to study the effects of those laws. Three capital cities were chosen for their different legal climates: Melbourne, where sex work is only decriminalised in licensed brothels (licensing), otherwise it remains illegal; Perth, where sex work remains criminalised; and Sydney, where most form of adult sex work are decriminalised, without licensing.

Through legal research we determined the laws and the level of policing of those laws in Victoria, WA, and NSW. We also mapped the female brothel-based sex industry in each city. Brothels were chosen at random, with a survey target of 200 sex workers in each city. Each brothel was repeated approached until every sex worker consented to participate or refused. Each participating sex worker completed a questionnaire that was available in 4 languages. Those women were then

offered testing for chlamydia, gonorrhoea, *Mycoplasma genitalium* infection, and trichomoniasis. Comparisons were made between cities.

Status: Data collection was completed at the end of 2008 and analyses and reporting of the findings are still underway. Several peer-reviewed papers have been published. The research has attracted invitations to present at national and international conferences. WA and NSW Health Departments have commissioned state-specific reports on their sex industries. The Victorian Government commissioned further research into its unlicensed sector.

Personnel: Basil Donovan, Chris Harcourt, Karen Schneider, Handan

Collaborators: Sandra Egger, Christopher Fairley, Marcus Chen, Lewis Marshall, Sepehr Tabrizi, Sexual Workers Outreach Project, Sydney; RhED, Melbourne; Magenta, Perth.

Wand, John Kaldor

Funding: NHMRC Project Grant, Victorian Department of Human Services Co-location: Sexual Health Program, Public Heath Interventions Research Group and Biostatistics and Databases Program

Report on the sex industry in New South Wales

This is a state specific report of the Sex Industry in New South Wales that was commissioned by the NSW Ministry of Health.

Status: Final report submitted November 2011

Personnel: Basil Donovan, Chris Harcourt, John Kaldor, Handan Wand, Lucy Watchirs Smith Collaborators: Sandra Egger (Faculty of Law, UNSW); Sepehr Tabrizi (Royal Women's and Royal Children's Hospitals , Melbourne); Christopher Fairley (Melbourne Sexual Health Centre/ University of Melbourne)

Funding: NSW Health Location: Sexual Health Program

REVIEWS, ANALYSES AND MATHEMATICAL MODELLING

Evaluation and cost effectiveness of HIV prevention in Asia

In Asia, the HIV epidemics are concentrated, driven by the prevalence of risky practices such as injecting drug use (IDU) and unprotected sex among sex workers and their sexual contacts. Drawing from data and experiences from countries in East Asia & Pacific, Europe & central Asia and the South Asia Region, this study will contribute to the improvement of the effectiveness and efficiency of HIV prevention responses in Asia's concentrated HIV epidemic settings

HIV/AIDS effectiveness evaluation and cost-effectiveness studies have become important analytical tools to understand what HIV investments have bought, whether the interventions averted new infections and AIDS deaths, and at what cost. They can support decision-making and prioritisation of intervention strategies and target groups within the HIV/AIDS response with its overall goals of minimising the burden of disease and

maximising health outcomes.

Status: Commenced 2011 Personnel: David Wilson, Lei Zhang, Richard Gray, Cliff Kerr, Hla Hla (Rosie) Thein, Alex Hoare, Josephine (Pen) Reyes, Xun Zhuang, Eric Chow, Quang Pham, Ka Ian (Corrine) Iu, Dam Ahn Tran, Kel Heymer, Amy Kwon, Karen Schneider, Charisse Farr, Andrew Craig, Kevin Yianjie, Wai Lok Yiu, Megan Tapia Collaborators: World Bank Global HIV/ AIDS Program; National Center for AIDS Prevention and Control; Nantong University; Tsinghua University; University of Indonesia; Indonesia National AIDS Commission; Indonesian Ministry of Health; University of Malaya; Malaysian Ministry of Health; Malaysian AIDS Council; Malaysia National Anti-Drug Agency; Royal Malaysian Police; Malaysian Prison Department; National Epidemiology Center, Department of Health, Philippines; World Health Organization, Manila; HIV-NAT (HIV-Netherlands-Australia-Thailand) Research Collaboration; Thai Ministry of Health; Viet Nam Administration of HIV/AIDS Control: UNAIDS, Viet Nam:

Funding: The World Bank Group **Location:** Surveillance and Evaluation Program for Public Health

Systematic review and meta-analyses of HIV comorbid conditions

Status: ongoing

Pasteur Institute

Personnel: David Wilson, Jo Watson, James Jansson, Fakhrul Islam, Fred Wu Funding: Australian Research Council (ARC), National Association of People Living with HIV/AIDS (NAPWA)



LEI ZHANG HIV public health in China

Chinese-born Lei Zhang is an epidemiologist working in HIV public health. He has trained in Australia and Germany but his work frequently takes him back to China, where he works with two very separate groups. "We have collaborations

with various government officials, and our study results are being used to inform health policy to improve prevention and monitoring programs for people in China," Dr Zhang said. The second group are NGOs and communities. "One is high-level and one is grassroots," he said. "We need to know the real situation at that level and understand the difficulties and struggles of people living with HIV in China." Through this work, Dr Zhang has become a passionate advocate for a group known as AIDS orphans, who face a high level of discrimination and stigma, such that they are unable to enrol in schools. They are the children of people who became HIVinfected through the blood supply in two central provinces, Henan and Anhui, from unregulated blood donation schemes in the late 1990s. About a third of their children are HIV-positive. "This is a very special group," Dr Zhang said. "We have worked with local organisations to facilitate

research, interventions and treatment needs. Our work with the AIDS orphans is still at the planning stage but we are committed to help them." Dr Zhang's projects are mostly related to China and South East Asia. He has also had a role in the Surveillance and Evaluation Program's evaluation of needle and suringe programs (NSPs) in Eastern Europe and Central Asia. HIV prevalence was very low in these areas before the breakup of the Soviet Union but it is now growing rapidly, particularly among injecting drug users. "We are seeing a delayed epidemic, but it's very fast," he said. "We have shown that NSEPs are highly effective and cost-effective, and one country [Armenia] has already incorporated our research into their health policy for HIV prevention."

Lei Zhang BSc (Adv Hons), MSc, PhD, MPH Lecturer, Surveillance and Evaluation Program for Public Health **Location:** Surveillance and Evaluation Program for Public Health

Clinical service delivery for HIVpositive people in Australia

Models of HIV clinical care in Australia vary substantially across jurisdiction.
As a result, patients in different areas receive treatment from clinicians with highly differing levels of expertise in HIV clinical management. The current ability of HIV clinical services to meet the needs of people living with HIV is unknown.
To assess the potential to meet future service HIV clinical service demand given expected growth in clinical service needs, and predicted geographical movement of the HIV population.

The Australasian Society for HIV Medicine (ASHM) will use the results of this study to target specific locations where the population of people living with HIV is undersupplied with HIV expertise, and provide additional clinical training in these areas. A seven-question survey was sent to 270 hospital departments, sexual health services and general practices with expertise in HIV management Australiawide. Data collection was completed in June 2011, and statistical analysis is currently being performed.

Status: Ongoing.

Personnel: Kylie Mallitt, David Wilson, Handan Wand, Levinia Crooks, David McGuigan

Collaborator: Australasian Society for HIV Medicine

Funding: Australian Research Council (ARC)

Location: Surveillance and Evaluation Program for Public Health

Projecting clinical and economic outcomes associated with people living with HIV (PLWH) in Australia

PLWH have access to a variety of drugs which decrease the viral load and hence the effects of HIV infection. These drugs increase the longevity of PLWH, and with a relatively small set of drugs available, it is possible that PLWH will outlive their treatment options. To what extent this will occur is unknown, and the effect that this will have on mortality of PLWH is of vital importance for planning future drug investment. This study will aim to determine the effect that passage through treatment stages and beyond (where new treatments are unavailable) has on the life expectancy of individuals infected with HIV. Various modelling techniques will be employed to simulate treatment pathways of individuals initiating HAART in 2011. Those treatment pathways will be based on both currently available drugs and theoretical future drugs.

Status: Commenced 2011 **Personnel:** Mark Boyd, James Jansson,

David Wilson, Kathy Petoumenos

Funding: Australian Research Council
(ARC)

Location: Surveillance and Evaluation Program for Public Health

Using mathematical models to assess the impact of interventions to reduce sexually transmitted infections in Australia

Mathematical models that describe the transmission of STIs are powerful tools that can facilitate our understanding of the transmission dynamics and the epidemiology of an STI in a population. Importantly, they can help us identify the most effective interventions for lowering STI prevalence in a population. Interventions are usually expensive to implement and take time to evaluate, but mathematical models can provide an efficient means for policy makers to assess the impact of interventions before implementation; this aids the design of more effective interventions. The output from these models can link with economic models to examine issues of allocative and technical efficiency (whether to invest and if so, how). In view of the marked increases in STIs and the National STI Strategy, there is an immediate need for tools to help explore the potential of and inform the design of interventions aimed at reducing STIs.

The findings from this project will inform the development of public health policy on the most cost effective strategies for reducing the incidence of STIs and their sequelae in Australian populations. The work will also provide useful insight to researchers developing Chlamydia vaccines on the necessary properties of potential vaccines for effective control of Chlamydia.

Status: ongoing

Personnel: Jane Hocking, David Regan, David Wilson, David Philp, Anthony Smith, James Ward, Matthew Law, John Kaldor, Rob Carter, Ben Hui Collaborators: University of Melbourne, La Trobe University, Deakin University, Queensland University of Technology Funding: National Health and Medical Research Council (NHMRC) Location: Surveillance and Evaluation Program for Public Health and Biostatistics and Databases Program

Modelling the interaction between sexually transmitted infections and HIV transmission to inform public health policy

This project is investigating the interaction between STIs and HIV transmission

with the aim of informing the design of effective public health interventions based on effective STI treatment. The results of this work are being applied to Australian Aboriginal and Torres Strait Islander communities, Australian men who have sex with men (MSM), and Papua New Guinea (PNG).

Status: A review of STI, IDU, and HIV in Aboriginal and Torres Straight Islanders is being conducted. A paper on the relationship between syphilis and HIV in Australian gay men has been published and a model of HIV and STI transmission in Aboriginal populations is currently being developed.

Personnel: David Wilson, Richard Gray, James Ward, Andrew Grulich, Basil Donovan, Sheila Matete-Owiti, Gordana Popovic

Funding: National Health and Medical Research Council (NHMRC) Location: Surveillance and Evaluation Program for Public Health

Modelling cellular and intercellular dynamics of chlamydia infections

Chlamydia trachomatis is the most common sexually transmitted disease in the world, and in women it can cause infertility without any prior symptoms. The innate immune response plays a part in determining the viability of a chlamydial infection, but a strong innate immune response appears to be paradoxically associated with more severe pathology. A better understanding of the innate immune response will aid vaccine development and treatment strategies.

This study aims to discover the essential correlates of chlamydial infection of the human reproductive tract. The project is conceived to prime effective translational research through the identification and characterization of antigens of relevance in the naturally infected host and pathogenetic mechanisms at play in the complex, natural environment of the female genital tract.

In vivo data and preliminary in vitro data have been collected. We are currently developing mathematical models to analyse in vivo data.

Status: ongoing.

Personnel: David Wilson, Andrew Craig, Patrik Bavoil, Roger Rank, Jacques Ravel, Anthony Maurelli, G. Myers, Peter Timms, Ken Beagley

Collaborators: University of Maryland, Baltimore; Queensland University of Technology; Arkansas Children's Hospital Research Institute

Funding: National Institutes of Health (NIH); Australian Research Council (ARC) Location: Surveillance and Evaluation Program for Public Health

Modelling, evaluation and health economic analysis of HIV epidemics in Australia

While other Australian jurisdictions have experienced a rise in HIV notifications during the last decade, NSW alone has not observed increases in notification rates. Although this could be considered a success for NSW, the population rate of HIV diagnosis in NSW has remained higher than in other Australian jurisdictions. This, coupled with trends towards changes in behaviour, highlight the need to develop strategies likely to be both epidemiologically effective and socially acceptable.

A NSW-specific mathematical model of HIV transmission was developed which accurately represents detail of sexual behaviour and heterogeneity of the gay population in NSW and the reported epidemiology. This model was used to simulate the expected population incidence and prevalence of HIV in NSW according to a number of future scenarios of specific changes in behaviour or interventions. In parallel to this modelling community-based social research among gay men in NSW was conducted to gain insight into the current knowledge, attitudes and beliefs regarding HIV infection and the acceptability of potential interventions and regarding trends in behaviour change. This social research applied a mixed-method approach, incorporating both qualitative and quantitative data collection and analysis, and involving focus groups and survey questionnaires.

The results from this project provide a stronger evidence base for effective HIV policies and programs in NSW. By incorporating both modelling and social research to determine interventions which are both effective and acceptable, polices are more likely to be taken up in the community and result in larger epidemiological benefits. This project has now been completed with the launch of the NSW HIV Modelling & Acceptability report in February 2011. Electronic release expected in early 2012.

Status: Completed 2011.

Personnel: David Wilson, Garrett Prestage, Richard Gray, Ian Down, Alex Hoare, Haris Ghaus, Jack Bradley Collaborators: Australian Research

Centre in Sex Health and Society, La Trobe

University, Melbourne Funding: NSW Health

Location: Surveillance and Evaluation

Program for Public Health



BETHANY WHITE Toward a vaccine for hepatitis C virus

The development of safe and effective hepatitis C virus (HCV) vaccines will depend not only on identifying candidates but on the existence of suitable high-risk cohorts in which they can be tested. Australia is one of only four countries in the world known to have such cohorts. The Hepatitis C Incidence and Transmission Study – Community (HITS-c) is a prospective

observational study designed to estimate the incidence of primary HCV infection and viral clearance; assess the impact of different strategies in recruiting at-risk people who inject drugs; identify factors associated with retention and protocol adherence; evaluate the efficacy of a brief intervention designed to increase HCV vaccine clinical trial literacy; and determine willingness to participate in future trials.

Bethany White's doctorate work, looking at the feasibility of conducting field trials of candidate HCV vaccines, has had a number of successes. While managing the HITS-c field team, Bethany spent time in areas of Sydney known to have high numbers of people who inject drugs. "One of the best parts of this study has been the contact with the participants," she said. "I know the names and faces of the first 80 or 100 people enrolled in the study, and we have had an extremely high retention rate – just over 80 percent at 24 months and that's very unusual for this group." A total of 170 people have been enrolled over three years and so far 24 cases of incident

HCV infection have been observed in the cohort. The HITS-c cohort is part of a program of HCV vaccine preparedness studies being conducted by VHEPP which is designed to lay the groundwork for Australian field trials of candidate HCV vaccines in people who inject drugs by answering key scientific questions, building community capacity, and establishing the necessary infrastructure to conduct future efficacy trials. "We need to know that we can identify and successfully engage this group, in order to recruit them and retain them for future trials," said Bethany, who has had six publications and twelve conference presentations from her work. "But to do it well will require a high level of resources and long-term commitment." She hopes to submit her thesis in 2012.

Bethany White BA (Psych), MPH Study Co-ordinator and PhD candidate, Viral Hepatitis Epidemiology and Prevention Program Thesis title: Hepatitis C vaccine preparedness Supervisors: Lisa Maher and Greg Dore

HIV ANTIRETROVIRAL THERAPY

Randomised trial in primaru HIV infection looking at three forms of intervention (SPARTAC)

SPARTAC (short pulse antiretroviral treatment at seroconversion) looks at the effect on CD4 T-cells of three interventions at primary HIV infection, either treating with antiretroviral therapy for 12 or 48 weeks or not treating at all until CD4 declines to <350 cells. Enrolment ceased in June 2007, by which time 37 patients had been screened. 31 patients continue to be followed up.

Status: study completed, final manuscript with publishers.

Personnel: Anthony Kelleher, Pat Grey Collaborators: Jonathon Weber, Sarah Fidler, Robert Finlayson, Mark Bloch, Robert McFarlane, Cassy Workman, Nick Doong, David Cooper, Mark Kelly, Norman Roth, Dr BK Tee, Richard Moore, Philip Cunningham, Kate McGhie, Julie Yeung Funding: Wellcome Trust

Location: Immunovirology and Pathogenesis Program

A study of the effects of the integrase inhibitor, raltegravir, on viral reservoirs in those treated at primary HIV-infection compared to those treated during chronic infection.

Status: The trial was fully enrolled at 16 patients. All patients completed the initial phase of trial (52 weeks) and 15 remain in two-year extension phase which will be completed in 2011. All patients on F/U completed final visit. First 52 week manuscript published. Extension phase results to be analysed.

Personnel: Anthony Kelleher, *Linda Gelgor, Pat Grey, Kersten Koelsch, Christophe Boesecke, Sean Emery, Wendy Lee, Janaki Amin, David Cooper (*deceased in 2011)

Collaborators: Robert Finlayson, Mark Bloch, Robert McFarlane, John Zaunders, Kat Marks, Kate McGhie, Julie Yeung, John Murray

Funding: Merck & Co Inc

Co-location: Therapeutic and Vaccine Research Program and Immunovirology and Pathogenesis

PHIDISA la

A prospective epidemiological cohort study of HIV and risk-related co-infections in the South African National Defence Force (SANDF).

Status: Recruitment opened January 2004. Sites: Six military medical sites in Republic of South Africa

Enrolled/target: 8,439/unlimited Personnel: Sean Emery

Funding: US National Institutes of Health; US Department of Defense; South African National Defence Force

A randomised open-label study comparing

Location: Therapeutic and Vaccine Research Program

ALTAIR

the safety and efficacy of three different combination antiretroviral regimens as initial therapy for HIV infection. Status: Recruitment January 2007 to February 2008, week 48 data lead to inclusion of week 144 follow-up visit. Sites: 37 sites in 15 countries Enrolled/target: 329/300 Personnel: Rebekah Puls, Carlo Dazo, Hila Haskelberg, Kathy Petoumenos

Funding: Gilead Sciences **Location:** *Therapeutic and Vaccine* Research Program

ALTAIR MRS Sub-study

A randomised open-label study comparing the safety and efficacy of three different combination antiretroviral regimens as initial therapy for HIV infection: CNS metabolite and cognitive impairment. Status: Recruitment April 2007 to August 2011, week 144 follow-up visit. Week 48 data published in JID 2010.

Sites: four sites in four countries Enrolled/target: 30/300

Personnel: Rebekah Puls, Carlo Dazo, Hila Haskelberg, Kathy Petoumenos, Steve

Funding: UNSW

Location: Therapeutic and Vaccine

Research Program

ENCORE1

A randomised, double-blind, placebocontrolled clinical trial to determine the safety and efficacy of reduced dose efavirenz (400mg qd) versus standard dose efavirenz (600mg qd) as part of combination therapy in treatment naive individuals with HIV infection.

Status: recruitment open August 2011

Sites: 52

Target: 630

Personnel: Rebekah Puls, Mark Boyd, Dianne Carey, Enmoore Lin, Jessica Taylor, Carlo Dazo, Anna Donaldson, Janaki Amin Funding: Bill & Melinda Gates Foundation **Location:** Therapeutic and Vaccine Research Program

ENCORE1 CNS Sub-study

A randomised, double-blind, placebocontrolled clinical trial to determine the safety and efficacy of reduced dose efavirenz (400mg qd) versus standard dose efavirenz (600mg qd) as part of combination therapy in treatment naive individuals with HIV infection: EFV central nervous system exposure sub-study.

Status: recruitment commenced September 2011

Sites: five sites in four countries **Target:** approximately 40

Personnel: Rebekah Puls, Enmoore Lin, Jessica Taylor, Carlo Dazo, Janaki Amin

Funding: UNSW **Location:** *Therapeutic and Vaccine*

Research Program

ENCORE1 Intensive Pharmacokinetics Sub-studu

A randomised, double-blind, placebocontrolled clinical trial to determine the safety and efficacy of reduced dose efavirenz (400mg qd) versus standard dose efavirenz (600mg qd) as part of combination therapy in treatment naive individuals with HIV infection: intensive 24 hour pharmacokinetic analysis. **Status:** recruitment commenced

September 2011

Sites: four sites in four countries Target: approximately 40

Personnel: Rebekah Puls, Dianne Carey, Enmoore Lin, Jessica Taylor, Carlo Dazo, Janaki Amin

Funding: UNSW

Location: *Therapeutic and Vaccine*

Research Program

ENCORE1 Neurocognitive Sub-studu

A randomised, double-blind, placebocontrolled clinical trial to determine the safety and efficacy of reduced dose efavirenz (400mg qd) versus standard dose efavirenz (600mg qd) as part of combination therapy in treatment naive individuals with HIV infection: the neurocognitive sub-study.

Status: recruitment commenced

September 2011

Sites: 17 sites in 11 countries

Target: 126

Personnel: Amanda Clarke, Rebekah Puls,

Anna Donaldson, Stephen Kerr

Funding: UNSW

Location: Therapeutic and Vaccine

Research Program

ENCORE2

Pharmacokinetics of plasma lamivudine (3TC), and its active intracellular anabolite 3TC-triphosphate over a 24 hour dosing interval following administration of 3TC 300 mg and 150 mg once daily to HIVnegative healthy volunteers.

Status: Completed 2010, submitted for publication 2011

Sites: one: Chelsea & Westminster

Hospital, London

Target: 24 HIV-1-negative subjects Personnel: Rebekah Puls, Paul Fahey, Enmoore Lin, Jessica Taylor, Carlo Dazo,

Natalie Espinosa Funding: Bill & Melinda Gates Foundation **Location:** Therapeutic and Vaccine

Research Program

SECOND-LINE

A randomised open-label study comparing the safety and efficacy of ritonavir boosted lopinavir and 2-3N(t)RTI backbone versus ritonavir boosted lopinavir and raltegravir in participants virologically failing firstline NNRTI/2N(t)RTI therapy. Status: Closed to enrolment



SARAH PETT

Balancing HIV, influenza and patients

Dr Sarah Pett is a physician who has combined her academic career in clinical research at the Kirbu Institute with her clinical work in infectious diseases at St Vincent's Hospital since 2000. She is currently clinical project leader on three large-scale studies: START, MARCH and

FLU002/003. The most recent study is MARCH, established this year and with the first patient enrolled in October 2011. MARCH is a switch study in HIV-1 infected participants. The study explores whether switching one component of combination antiretroviral therapu for another is equally effective in suppressing t levels of virus in the blood. Switch strategies are important because they provide options for toxicity management. Dr Pett leads an Australian team of three study coordinators, a database manager and an administrative assistant (as well as six staff in co-ordinating centres in Latin America, Spain and Germany) for MARCH, which is to be conducted at 60 sites in 13 countries. There are also three sub-studies, looking at the effects of switching to maraviroc-based regimens on neurocognitive, renal and cardiovascular health. She also leads two ongoing studies of influenza. FLU002 and FLU003 are international observational studies funded through the INSIGHT network. Both began in 2009 in as part of the response to the first pandemic of influenza for over 40 years - 2009 HINI - and are expected to continue to 2014. Dr Pett co-ordinates 21 sites in FLU002 and 17 sites in FLU003, in Latin America, Australia and SE Asia. These studies have created an enormous repository of both blood and virus samples, which are already being used to answer important clinical and pathogenesis questions about influenza. "The main focus of my research to date has been in the field of HIV," Dr Pett said, "so it has been extremely gratifying to use my broader infectious disease experience in the

Dr Sarah L. Pett BSc(Hons), MB BS(Hons), DTM&H, FRACP, FRCPE, PHD Senior Lecturer, Therapeutic and Vaccine Research Program

clinical trial setting, such as in influenza."

Sites: 40

Target: 558 recruited

Personnel: Mark Boyd, Alli Humphries, Natalie Espinosa, Nisha Seneviratne, Maria Arriaga, Rosemary Robson, Wendy Lee Funding: UNSW, Merck, Abbott, amfAR **Location:** Therapeutic and Vaccine Research Program

SECOND-LINE Dried Blood Spot substudy

To test concordance between dried blood spots to assess viral load and genotypes as compared to centrally tested stored samples. **Status:** Closed to enrolment

Sites: 40 Target: 150

Personnel: Mark Boyd, Alli Humphries,

Natalie Espinosa

Funding: UNSW, Merck, Abbott, amfAR **Location:** Therapeutic and Vaccine

Research Program

SECOND-LINE Body Composition substudy

To determine the difference in mean limb fat changes and BMD changes at the proximal femur as measured by DXA scan between the 2 study arms in a sub-set of the SECOND-LINE cohort.

Status: Closed to enrolment

Sites: 40 Target: 212

Personnel: Mark Boyd, Alli Humphries, Nisha Seneviratne, Paddy Mallon, Jennifer Hoy, Waldo Belloso, Samuel Ferret Funding: UNSW, Merck, Abbott, amfAR **Location:** Therapeutic and Vaccine

Research Program

ART Intensification with raltegravir and hyper-immune bovine colostrum (CORĂL)

A randomised, double-blind, placebo controlled multi-centre study to measure the effect on CD4+ outcomes of combination antiretroviral therapy intensification with or without passive immunotherapy to reduce immune activation in HIV-infected individuals with persistent CD4+ T-cell count <350 cells/ μL despite prolonged HIV plasma viraemia <50 copies/mL for at least 12 months on combination antiretroviral therapy. Status: Analysis completed. All sites closed August 2010. Manuscript published J Infec Dis 2011

Sites: 20 Australian sites Enrolled/target: 75/72

Personnel: Helen Byakwaga, Hila Haskelberg, Kymme Courtney-Vega, Janaki Amin, Mark Boyd, Sean Emery

Funding: UNSW

Location: Therapeutic and Vaccine

Research Program

Strategic Timing of Antiretroviral Therapy (START)

An open-label randomised multicentre trial to examine the safety and efficacy of commencing combination antiretroviral therapy at a CD4+ cell count of > 500 cells/mm³ versus commencing at a CD4+ cell count of <350 cells/ mm³. This initiative includes several substantial substudies (see below for details) designed to determine the effects of treatment with ART on neurological manifestations of HIV disease, cardiovascular complications, bone mineral metabolism, chronic obstructive pulmonary disease, liver fibrosis progression and abbreviated forms of informed consent documentation. Status: Recruitment opened April 2009. To date 1639/4000 enrolled, with 274 in the Sydney region.

Sites: 100 in the pilot phase with 17 sites co-ordinated by the Kirby Institute), expanding in the definitive phase with a further 30 sites co-ordinated by KI (in Argentina, Chile, Mexico, Israel, Thailand, Nigeria, India, Malaysia and Australia). **Target:** pilot phase enrolment 1200 patients with 220 from sites coordinated by the Kirby Institute; enrolment in the definitive phase will be 4000 (with approximately 1000 from sites coordinated by the Kirby Institute) Personnel: Cate Carey, Megan Evans, Simone Jacoby, Sally Hough (maternity leave), Joseph Levitt, Sean Emery, Lara

Cassar, Sarah Pett Funding: Division of AIDS (DAIDS), The National Institute of Allergy and Infectious Diseases (NIAID), National Institutes of Health (NIH); Australian National Health and Medical Research Council (NHMRC); Agence Nationale de Recherches sur le SIDA et les Hépatites Virales (ANRS, France); Bundesministerium für Bildung und Forschung (BMBF, Germany); NEAT - European AIDS Treatment Network; Department of Bioethics, The Clinical Center, NIH; Division of Clinical Research, NIAID, NIH; National Cancer Institute (NCI), NIH; National Heart, Lung, and Blood Institute (NHLBI), NIH; National Institute of Mental Health (NIMH), NIH; National Institute of Neurological Disorders and Stroke (NINDS), NIH; National Institute for Arthritis and Multiple Sclerosis (NIAMS), NIH **Location:** Therapeutic and Vaccine Research Program

Informed Consent Substudy: A substudy of Strategic Timing of AntiRetroviral Treatment (START)

This substudy is evaluating understanding of study information and satisfaction with the consent process among research



HILA HASKELBERG Bone loss during HIV disease

Antiretroviral treatments mean that people with HIV are much less likely to get sick or die from AIDS-related conditions. However, morbidity and mortality continues to exceed the levels expected in comparison with HIV-negative people. As survival continues to improve and the affected population enters middle age, new problems have emerged. The average HIV-positive man is losing about ten years from his life expectancy; people with HIV in developed countries are more likely to die of cardiovascular, liver and kidney disease and cancer. Hila Haskelberg's work addresses aspects of bone loss in this population. The traditional risk factors for bone loss in the general population include age, low body weight, gender and race; family history; and exercise, smoking and alcohol behaviours. For HIV-infected people, the virus itself, the course of infection and the type of antiretroviral drug are also associated with differential bone morbidity. Low bone mineral density, osteoporosis and fractures appear more common in HIV-infected adults than in healthy adults. Hila's first project, a substudy of the STEAL study, addressed bone turnover markers. These biochemical markers allow a specific assessment of new bone formation and old bone removal from the skeleton. That process of renewal appears to be unbalanced in the presence of HIV and the choice of ART may have role. "At the cellular level, immune activation and systemic chronic inflammation may affect bone cells and lead to a decrease in bone mineral density," Hila said. "I am looking at the possible toxic effects of HIV and antiretroviral treatment on bone, including bone mineral density, bone turnover biochemical markers and vitamin D status in HIV-infected patients. I'm looking at different populations of patients, at different

Therapeutic and Vaccine Research Program Thesis title: Antiretrovirals Toxicity in HIV-Infected Patients Supervisors: Sean Emery, Andrew Carr and Janaki Amin

stages of their disease and treatment to try

and further understand the development of

bone loss in HIV-infected adults."

Hila Haskelberg BSc; PhD candidate,

participants of the START protocol, after receiving information from one of two different types of consent form: a standard or a concise consent.

Status: Recruitment opened April 2009. To date 1297/4000 enrolled, with 256 in the Sydney region.

Sites: 75 in the pilot phase with 15 sites in the Sydney region (sites coordinated by the Kirby Institute), expanding in the definitive phase (from October 2010) with a further 19 sites in the Sydney Region. Target: n=2000.

Personnel: Cate Carey, Megan Evans, Simone Jacoby, Sally Hough (maternity leave), Joseph Levitt, Sean Emery, Lara Cassar, Sarah Pett

Funding: DAIDS; NHMRC; ANRS, France; BMBF, Germany; NEAT - European AIDS Treatment Network; Department of Bioethics, The Clinical Center, NIH **Location:** *Therapeutic and Vaccine* Research Program

Genomics: A substudy of Strategic Timing of AntiRetroviral Treatment

The purpose of this substudy is to obtain a whole blood sample from which DNA will be extracted to study validated (present and future) genetic variants that determine the risk of the various primary and secondary outcomes assessed in START. **Status:** Since April 2009, 1156/4000 enrolled, with 172 in the Sydney region. **Sites:** as many of the START sites as possible to be involved; to date 125 sites are registered with 17 in the Sydney region Target: as many of the overall cohort of 4000 START patients as possible. Personnel: Cate Carey, Megan Evans, Simone Jacoby, Sally Hough (maternity leave), Joseph Levitt, Sean Emery, Lara Cassar, Sarah Pett Funding: DAIDS; NHMRC; ANRS, France;

BMBF, Germany; NEAT - European AIDS Treatment Network; Division of Clinical Research, NIAID, NIH

Location: *Therapeutic and Vaccine* Research Program

Neurology: A substudy of Strategic Timing of AntiRetroviral Treatment (START)

The purpose of the substudy is to determine whether immediate initiation of antiretroviral therapy (ART) in ARTnaïve persons with a CD4+ count > 500 cells/mm³ is superior, with respect to neurocognitive function, compared to deferring ART initiation until CD4+ counts decline to 350 cells/mm³. Status: Recruitment opened April 2009. To date 468/600 enrolled, with 158 in the Sydney region. Sites: 30 in the pilot phase (11 in Sydney

region) expanding to a total of 33 sites **Target:** n=600

Personnel: Cate Carey, Megan Evans, Simone Jacoby, Sally Hough (maternity leave), Joseph Levitt, Sean Emery, Lara Cassar, Sarah Pett

Funding: DAIDS; NHMRC; ANRS, France; BMBF, Germany; NEAT - European AIDS Treatment Network; NIMH, NIH; NINDS,

Location: Therapeutic and Vaccine Research Program

Arterial Elasticity: A substudy of Strategic Timing of AntiRetroviral Treatment (START)

The arterial elasticity substudy will determine if early initiation of ART is superior to deferred ART in increasing large artery elasticity (LAE) and small artery elasticity (SAE) (i.e., in reducing arterial stiffness) as measured by pulse wave tonometry.

Status: Recruitment opened September 2009. To date 142/300 enrolled, with 78 co-ordinated by KI.

Sites: 17 sites in the pilot phase (5 sites co-ordinated by KI), expanding to 21 sites, with one additional site co-ordinated by KI (in India), and 6 sites (in Australia, Thailand and Argentina) contributing patients utilising tonometers located at other sites in the same city

Target: n=300

Personnel: Joseph Levitt, Cate Carey, Megan Evans, Simone Jacoby, Sally Hough (maternity leave), Sean Emery, Lara Cassar, Sarah Pett

Funding: DAIDS; NHMRC; ANRS, France; BMBF, Germany; NEAT - European AIDS Treatment Network and NHLBI, NIH **Location:** *Therapeutic and Vaccine* Research Program

Pulmonary Substudy: A substudy of Strategic Timing of AntiRetroviral Treatment (START)

The pulmonary substudy will determine if early initiation of ART is superior to deferred ART in with regards to pulmonary function as assessed by annual spirometry and respiratory health questionnaire.

Status: Recruitment opened January 2010. To date 263/1000 enrolled, with 38 co-ordinated by KI.

Sites: 45 in the pilot phase with 7 sites in the Sydney region; a further 40 sites will be added for the definitive phase including another 17 sites co-ordinated by KI.

Target: n=1000

Personnel: Cate Carey, Megan Evans, Simone Jacoby, Sally Hough (maternity leave), Joseph Levitt, Sean Emery, Lara Cassar, Sarah Pett

Funding: DAIDS; NHMRC; ANRS, France;

BMBF, Germany; NEAT - European AIDS Treatment Network and NHLBI, NIH **Location:** *Therapeutic and Vaccine* Research Program

Bone Mineral Density: A substudy of Strategic Timing of AntiRetroviral Treatment (START)

The bone mineral density substudy will determine if early initiation of ART is superior to deferred ART in with regards to bone health as measured by annual bone mineral density.

Status: Recruitment opened March 2011. To date 13/400 enrolled, with 11 at sites co-ordinated by KI.

Sites: 44 with 18 sites co-ordinated by KI (includes pilot sites that are already open and definitive phase sites)

Target: n=400

Personnel: Simone Jacoby, Megan Evans, Sally Hough, Joseph Levitt, Sean Emery, Cate Carey, Lara Cassar, Sarah Pett Funding: DAIDS; NHMRC; ANRS, France; BMBF, Germany; NEAT - European AIDS Treatment Network and The National Institute of Arthritis and Musculoskeletal and Skin Diseases, NIH.

Location: *Therapeutic and Vaccine* Research Program

Liver Fibrosis Progression: A substudy of Strategic Timing of AntiRetroviral Treatment (START)

The liver fibrosis progression (LFP) substudy will use fibroscan technology to examine the effect of HIV, hepatitis C virus (HCV) and ART on the rates of LFP among ART naive HIV-infected individuals with and without viral hepatitis with CD4+ counts above 500 cells/mm³. Status: protocol release September 2011,

recruitment expected to commence towards the end 2011

Sites: approx. 40 with 13 sites in Sydney region (includes pilot sites that are already open and definitive phase sites)

Target: n=990 (900 HIV mono-infected and 90 HIV/HCV co-infected)

Personnel: Cate Carey, Megan Evans, Simone Jacoby, Joseph Levitt, Sean Emery, Lara Cassar.

Funding: no additional funding **Location:** *Therapeutic and Vaccine* Research Program

STEAL HLA Sub-study

An analysis of HLA-A, HLA-B and HLA-C super-types related to cardiovascular disease and body composition in patients recruited and followed in the STEAL study. **Status:** Manuscript being drafted **Sites:** All that participated in the main STEAL study and collected storage samples Target: All participant storage samples

collected at week 0, 12, 24 and 48 Personnel: Allison Humphries, Sean Emery, Janaki Amin, David Cooper, Damien Cordery

Funding: Kirby Institute, UNSW **Location:** Therapeutic and Vaccine Research Program

STEAL Body Composition Sub-study

An analysis of predictors of body composition changes in patients recruited and followed in the STEAL study. Status: Manuscript accepted for

publication

Sites: All that participated in the main STEAL study and had a DEXA scan completed at baseline

Target: All participants' DEXA scans completed at week 0, 48, and 96. Personnel: Allison Humphries, Sean Emery, Janaki Amin, David Cooper, Mark Bloch

Funding: Kirby Institute, UNSW **Location:** Therapeutic and Vaccine Research Program

STEAL Bone biomarker Sub-studu

An analysis of biomarkers related to bone disease in patients recruited and followed in the STEAL study.

Status: Manuscript being drafted Sites: All that participated in the main STEAL study and collected storage samples Target: All participants' storage samples collected at week 0, 12, 24, 48, 72 and 96 Personnel: Hila Haskelberg, Sean Emery, Andrew Carr, Jennifer Hoy, Janaki Amin, Peter Ebeling

Funding: Kirby Institute, UNSW and Dept Immunology, St Vincent's Hospital **Location:** *Therapeutic and Vaccine* Research Program

FLU002

An International Observational Study to Characterize Adults with Influenza A -Pandemic H1N1 (H1N1v) INSIGHT H1N1v Outpatient Study (FLU 002). Note that version 3.0 broadens inclusion to include all influenza subtypes not just H1N1 and the protocol has been renamed An International Observational Study to Characterize Adults with Influenza. **Status:** vs. 3. 0 21-Jun-2011, open at sites with community transmission of influenza

Sites: 85 sites globally; in Sydney region: 23 sites (in Thailand, Argentina, Chile and Australia)

Target: 1895/5000; enrolment in Sydney region n=968

Personnel: Sarah Pett, Sean Emery, David Courtney-Rodgers, Lara Cassar

Funding: NIAID

Location: Therapeutic and Vaccine Research Program

FLU003

An International Observational Study to Characterize Adults Who Are Hospitalized with Complications of Influenza A – Pandemic H1N1 (H1N1v) INSIGHT H1N1v Hospitalization Study (FLU 003)). Note that version 2.0 broadens inclusion to include all influenza subtypes not just H1N1 and the protocol has been renamed An International Observational Study to Characterize Adults Who Are Hospitalized with Complications of Influenza Status: vs. 2.0 21-Jun-2011, open at sites

with community transmission of influenza Sites: 98 globally; 19 in Sydney region (in Thailand, Argentina, Chile, Hong Kong and Australia)

Target: 580/1600; total enrolment; enrolment in Sydney region n=116 Personnel: Sarah Pett, Sean Emery, David Courtney-Rodgers, Lara Cassar

Funding: NIAID

Location: Therapeutic and Vaccine Research Program

SPARTA

A randomised, open-label, cross-over study to examine the pharmacokinetics and short-term safety and efficacy of two dosing strategies of raltegravir plus atazanavir in HIV-infected patients. Status: Study completed July 2011.

Manuscript submitted. Sites: two

Target: 24

Personnel: Dianne Carey Funding: UNSW

Location: Therapeutic and Vaccine Research Program

LASA

A multicenter randomised study to compare the efficacy and safety of lower dose atazanavir/ritonavir (ATV/r 200/100 mg OD) versus standard dose (ATV/r 300/100 mg OD) in combination with 2NRTIs in well virology suppressed HIV-infected adults.

Status: 199/560 **Sites:** nine clinical centres in the Thai National Health Service network

Target: 560 Personnel: Sean Emery

Funding: Kirby Institute, HIVNAT, Thai

Location: Therapeutic and Vaccine Research Program

MARCH

A randomised, controlled trial to evaluate the efficacy and safety of maraviroc as a switch for either nucleoside analogue reverse transcriptase inhibitors (N(t)RTI) or boosted HIV protease inhibitors(r/PI)



IASON GREBELY

Enhancing diagnosis, assessment and treatment of hepatitis C

Hepatitis C virus (HCV) infection is a major public health problem associated with considerable morbidity, mortality and health-related costs. The majority of new (90%) and existing (80%) infections occur among people who inject drugs (PWID). Our knowledge of the epidemiology and natural history of HCV has been hampered because the majority of newly infected individuals are asymptomatic and the identification and follow-up of these people has been difficult. Treatment is effective, but strategies to enhance treatment uptake, particularlu among PWID, are needed to reduce HCV-related morbidity and mortality. The Viral Hepatitis Clinical Research Program (VHCRP) is focused on viral hepatitis-related research in the areas of clinical trials, clinical epidemiology and laboratory sciences. Dr Jason Grebely is a Senior Lecturer in VHCRP. His research focuses on better understanding the epidemiology and natural history of HCV, identifying barriers to assessment and treatment of HCV and developing novel therapeutic strategies to enhance assessment and treatment of HCV, with a specific focus on PWID. Supported by an undergraduate degree in biochemistry and molecular biology, a PhD in pharmacology and a postdoctoral fellowship in clinical epidemiology, his research focuses on conducting science across disciplines through a "cell to society" approach, fostering translational research. "Strategies to enhance the diagnosis, assessment and treatment of HCV infection among PWID are urgently needed," said Dr Grebely "As we move forward, partnerships between researchers across disciplines, service providers, government officials and community members will be essential in our efforts to reduce the future burden of HCVrelated morbidity and mortality in Australia and globally." aspects of transmission of HCV in PWID,

Dr Grebely supervises students working on the natural history of HCV and treatment of HCV among PWID.

Dr Jason Grebely BSc, PhD Senior Lecturer, Viral Hepatitis Clinical Research Program

in HIV infected patients with stable, wellcontrolled plasma HIV-RNA while taking their first N(t)RTI + r/PI regimen of combination antiretroviral therapy (cART) – The MARCH study.

Status: version 1.0 11-May-2011. Site selection concluded, enrolment commenced 2011 Q3, 2/560 enrolled **Sites:** 70 clinical centres in the Kirby international network including Argentina, Australia, Brazil, Canada, Chile, France, Germany, Ireland, Israel, Japan, Mexico, Peru, Spain, UK.

Target: 560

Personnel: Sean Emery, Sarah Pett, Nisha Seneviratne, Elise, Tu, Hila Haskelberg, David Silk, Rose Robson, Kymme-Courtney-Vega, Wendy Lee, Aurelio Vulcao **Funding:** Pfizer/ViiV Healthcare **Location:** *Therapeutic and Vaccine* Research Program

MARCH CNS substudu

A CNS substudy of randomised, open label study to evaluate the efficacy and safety of maraviroc (MVC) as a switch for either nucleoside or nucleotide analogue reverse transcriptase inhibitors (N(t)RTI) or boosted protease inhibitors (PI/r) in HIV 1 infected individuals with stable, well controlled plasma HIV RNA while taking their first N(t)RTI + PI/r regimen of combination antiretroviral therapy (cART): The MVC central nervous system (CNS) exposure sub study. Version 0.1, 01 June 2011

Status: Protocol and documentation being prepared. Site selection concluded, recruitment to commence 2012, Q1 Sites: 15 clinical centres in the Kirby international network. Sites located in Australia (n=7), Canada (n=1), France (n=1), Germany (n=2), Israel (n=1), UK (n=3).

Target: 50

Personnel: Nisha Seneviratne, Sarah Pett, Rose Robson

Funding: Kirby Institute

Location: Therapeutic and Vaccine Research Program

MARCH resistance substudu

A study to explore the prevalence and evolution of HIV drug-resistance using cell associated HIV DNA: The MARCH Resistance Sub-study. Version 0.4, 12 September 2011

Status: Protocol and documentation being prepared. Site selection concluded, recruitment commencing Q4 2011

Sites: All sites

Personnel: David Cooper, Sean Emery, Tony Kelleher, Sarah Pett, Elise Tu

Funding: Kirby Institute **Location:** Therapeutic and Vaccine

Research Program

MARCH -VE substudu

Maraviroc Switch vascular endothelium substudy. To explore changes in VE as measured by pulse wave tonometry in the MARCH study.

Status: Protocol and documentation being prepared. Site selection concluded, recruitment to commence 2012 Q1 **Sites:** 11 clinical centres in the Kirby international network with access to a START study pulse wave tonometer. Sites located in Argentina (n=4), Australia (n=4), Germany (n=2), UK (n=1). **Target:** 75

Personnel: Sarah Pett, David Silk, Rose Robson, and others (TBC) Funding: Kirby Institute Location: Therapeutic and Vaccine Research Program

MARCH renal substudy

A study to explore whether patients on experimental treatment will have lower rates of proteinuria than patients continuing on the current standard care treatment in the MARCH study.

Status: Protocol and documentation in finalisation. Site selection in progress, recruitment to commence 2012, Q1

Sites: site survey pending

Target: 150
Personnel: Mark Kelly, Waldo Belloso,
Sarah Pett and David Silk
Funding: Kirby Institute

Location: Therapeutic and Vaccine Research Program

RESTORE

An observational study to explore reconstitution of immunity in patients with advanced HIV-1-infection commencing combination antiretroviral therapy

Status: fully enrolled as of January 2011 Sites: One clinical site: Chulalongkorn University Hospital, Bangkok. Target: 50

Personnel: Denise Hsu, Sarah Pett, Tony Kelleher, David Cooper, Lara Cassar Funding: Kirby Institute

Location: Therapeutic and Vaccine Research Program

The Australian HIV Observational Database (AHOD)

Observational cohort study of patients with HIV. Demographic, clinical and treatment data are aggregated twice each year via electronic data transfer.

Status: 3378 patients recruited by 31 March 2011.

Personnel: Hamish McManus, Stephen Wright, Courtney Bendall, Kathy Petoumenos, Matthew Law

Collaborators: Network of clinical sites (GPs, hospitals and sexual health clinics) throughout Australia

Funding: Foundation for AIDS Research (amfAR) via a US National Institutes of Health grant through the International Epidemiologic Databases Evaluating AIDS collaboration; consortium of pharmaceutical companies.

Location: Biostatistics and Databases Program

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

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.

Status: The study combines data from 11 cohorts, including more than 33,000 patients. Australia contributes 706 patients from the Australian HIV Observational Database. Follow up continued through 2010.

Personnel: Hamish McManus, Stephen Wright, Kathy Petoumenos, Matthew Law Collaborators: Network of clinical sites (GPs, hospitals and sexual health clinics) throughout Australia; Copenhagen HIV Programme, Hvidovre University Hospital Funding: European Agency for the Evaluation of Medicinal Products (EMEA) Location: Biostatistics and Databases Program

Myocardial infarction, assessment of Antiretroviral and Genetic factors in Human Immunodeficiency virus infection: MAGNIFICENT

International collaborative project of 17 observational HIV cohort studies to evaluate the contribution of single nucleotide polymorphisms (identified in genome-wide association studies in the general population) and of combination antiretroviral therapy (cART), traditional acute coronary artery disease (CAD) risk factors, and HIV-related factors (CD4+count, HIV RNA levels) to CAD events in HIV-infected individuals.

Status: study closed in January 2011. **Personnel:** Courtney Bendall, Kathy Petoumenos

Collaborators: Network of clinical sites (GPs, hospitals and sexual health clinics) throughout Australia; Swiss HIV Cohort Study Group

Location: Biostatistics and Databases Program

The Australian HIV Observational Database Temporary Residence Access Study

An AHOD sub-study recruiting 180 HIV-

positive legal temporary residents who are ineligible for Medicare and providing free antiretroviral for a maximum of four years. Recruitment to this study commenced November 2011. Antiretrovirals are provided by all 7 pharmaceutical companies with licensed anti-HIV drugs in Australia.

Status: Ongoing Personnel: Hamish McManus, Stephen Wright, Courtney Bendall, Kathy

Petoumenos

Collaborators: National Association of people living with HIV/AIDS (NAPWA) Location: Biostatistics and Databases Program

VIRAL HEPATITIS

ACTIVATE – Response Guided Treatment for Patients with Chronic HCV Infection and Ongoing Injection Drug Use

This is a phase IV, open-label, multicentre, international trial of response guided treatment with directly observed pegylated interferon alfa 2b and selfadministered ribavirin for patients with chronic HCV genotype 2 or 3 infection and ongoing injection drug use. The primary objective is to evaluate the proportion of patients with sustained virological response at 24 weeks post end of treatment (SVR24) following directly observed pegylated interferon alfa 2b and self-administered ribavirin for 12 weeks in participants with undetectable HCV RNA at week 4 of therapy, and for 24 weeks in participants with detectable HCV RNA at week 4 of therapy. The study will be conducted in Australia, Canada, United Kingdom, Germany, Switzerland, France, Belgium, Norway and Finland. **Status**: Initial ethics approval in Australia in June 2011, in Norway in November 2011; expected in other countries January/February 2012. Trial sites will be initiated for recruitment in early 2012. **Enrolled**: To commence in January/ February 2012 Personnel: Greg Dore, Pip Marks, John

Personnel: Greg Dore, Pip Marks Morrison, Marianne Byrne Collaborators: St Vincent's Hosp

Collaborators: St Vincent's Hospital, Sydney; The Burnet Institute; Nepean Hospital; Hunter Pharmacotherapy, Newcastle; Royal Adelaide Hospital; Praxis Im Tal, Munich; CONCEPT Centre, Munich; University Hospital Bern; Zentrum fur Suchtmedizin Basel; ARUD, Poliklinik Zokl 1, Zurich; Oslo University Hospital; Espoo Treatment and Rehabilitation A-clinic, Espoo, Finland; ZNA Stuivenberg, Antwerp; St Dizier, France; MSOC, Free Clinic, Schijnpoortweg 14, Antwerp; Ziekenhuis Oost Limburg ZOL CAD, Genk, Belgium;

Barts and the London Queen Mary's
School of Medicine and Dentistry,
London; Nottingham University Hospital,
Nottingham; Downtown Infectious
Diseases Clinic, University of British
Columbia; St Luc Hospital, CHUM - Centre
Hospitalier de l'Universite de Montreal,
Montreal; East Toronto Hepatitis C
Partnership, South Riverdale Community
Health Centre, Toronto
Funding: Merck Sharpe and Dohme
Location: Viral Hepatitis Clinical Research

GP Pilot-Enhanced Treatment for Hepatitis C in Primary Care Settings

Program

This is a prospective observational cohort study, aiming to evaluate the feasability, safety and efficacy of a primary care based model for the delivery of HCV services, including initiation of anti-viral therapy. Those subjects that commence treatment will be followed until 24 weeks post treatment (SVR). The cohort will be recruited through a network of primary care clinics undertaking HCV assessment, treatment and monitoring.

Status: Initial ethics approval June 2010, amendment approval July 2011. **Enrolled**: 30 / 50-60

Personnel: Greg Dore, Pip Marks, Amanda Erratt

Collaborators: Australasian Society for HIV Medicine (ASHM); National Centre in HIV Social Research (NCHSR); East Sydney Doctors, Darlinghurst; Clinic 96, Orange; Hunter Pharmacotherapy Services, Newcastle; The Byrne Surgery, Redfern; Cowra Medical Associates, Cowra; Asquith Medical Centre, Asquith; Dr Doong's Surgery, Burwood.
Funding: Australasian Society for HIV

Medicine (ASHM)
Location: Viral Hepatitis Clinical Research

Cancer Council STREP Grant

Understanding hepatocellular carcinoma in NSW

Status: Ethics approval for NSW HBV and HCV linkage study (linkage to NSW Central Cancer Registry, Mortality data from Registry of Births Deaths and Marriages and Australian Bureau of Statistics, NSW Admitted Patient Data Collection) was granted from the NSW Population & Health Services Research Ethics Committee and the UNSW HREC during 2009. A probabilistic linkage of NSW Notifiable Diseases Database, Admitted Patient Data Collection, Central Cancer Registry and deaths was completed at the end of 2009. The linkage was carried out by the Centre for Health Record Linkage (CHeReL). Analyses on the epidemiology and natural history



MARYAM ALAVI

Overcoming barriers to treatment for viral hepatitis

Maryam Alavi's doctoral thesis concerns understanding barriers to the assessment and treatment of hepatitis C among people who inject drugs.

"Rates of hepatitis C treatment among people who inject drugs are extremely low. Understanding barriers to assessment and treatment in this highly marginalised population is crucial to address this inequity" Maryam said. "Given many people who inject drugs have been infected for more than two decades, the burden of HCV-related liver disease is escalating." Fortunately, a revolution in HCV treatment is fast approaching. Before the end of this decade, simple (once-daily combination oral regimens), tolerable, short-duration (6-24 weeks) therapy with extremely high efficacy (cure rates >90%) should be the norm. The broad implementation of such therapeutic regimens has the potential to produce one of the major turnarounds in disease burden seen in public health and clinical medicine. "As newer HCV therapies become available, the key issue moving forward will be the development of programs to enhance the delivery of care for patients with hepatitis C," Maryam said. "Given that people who have injected drugs constitute the majority of those infected, it will be important to understand barriers to assessment and treatment in this population and design and implement programs to improve assessment and treatment."

Maryam's project will assist in understanding factors associated with hepatitis C treatment uptake, response to therapy and the potential impact of hepatitis C treatment on morbidity and mortality. These are important steps in the development of treatment strategies to enhance HCV care in people who inject drugs.

Maryam Salehi Alavi BSc MSc; PhD candidate, Viral Hepatitis Clinical Research Program Thesis title: Barriers to the assessment and

treatment of hepatitis C virus infection in injecting drug users
Supervisors: Greg Dore and Jason Grebely

(including morbidity and mortality) of HCC and viral hepatitis are ongoing.

Personnel: Rosie Thein, Greg Dore, Jason Grebely, Maryam Alavi, Janaki Amin, Heather Gidding, Matthew Law

Collaborators: Kate Ward (NSW Health)

Funding: The Cancer Council NSW

Location: Viral Hepatitis Clinical Research

Program

Australian Trial in Acute Hepatitis C (ATAHC II)

A prospective longitudinal study of natural history and treatment outcomes following response guided treatment of recent hepatitis C infection.

Status: Commenced recruitment August 2011. Sites initiated: St. Vincent's Hospital, Sydney, Royal Prince Alfred Hospital, Kirketon Road Centre, Royal Adelaide Hospital and Princess Alexandra Hospital. Twelve subjects screened to date. Enrollment target: 120 subjects

Personnel: Gail Matthews, Greg Dore, Barbara Yeung, Pip Marks, Jason Grebely, Tanya Applegate,

Collaborators: Macfarlane Burnet
Institute for Medical Research and Public
Health; St Vincent's Hospital, Sydney;
Royal Prince Alfred Hospital; Kirketon
Road Centre; Nepean Hospital; School
of Medical Sciences, UNSW; School of
Biotechnology and Biomolecular Sciences,
UNSW; The Alfred Hospital; St. Vincent's
Hospital, Melbourne; Royal Melbourne
Hospital; Royal Adelaide Hospital;
Princess Alexandra Hospital; Royal Perth
Hospital and Murdoch University.
Funding: US National Institutes of Health
Location: Viral Hepatitis Clinical Research
Program

Enhancing Treatment of Hepatitis C in Opiate Substitution Settings (ETHOS)

The Kirby Institute was awarded an NHMRC Partnership Grant (partner organisations listed below) to address the issue of HCV treatment in the opiate pharmacotherapy setting. Among patients with a history of injection drug use, the specific objectives of this study are to examine:

- Assessment and treatment of HCV in a prospective cohort study – the ETHOS Cohort.
- Patient and provider attitudes and barriers towards the provision of services for assessment and treatment of HCV infection.
- 3.Peer based support as a strategy for enhancing knowledge and uptake of treatment for HCV infection.
- 4. Cost effectiveness of providing assessment and treatment for HCV infection in the opiate pharmacotherapy setting.

Status: This study commenced recruitment in February 2009. There are nine sites initiated on the study and 330 participants have been enrolled in the study, to date.

Target: 500

Personnel: Greg Dore, Jason Grebely, Pip Marks, Michelle Micallef

Collaborators: National Centre in
HIV Social Research (NCHSR); NSW
Department of Health; Sydney Local
Health District; Hepatitis C Council of
NSW; NSW Users and AIDS Association
(NUAA); Discipline of Addiction Medicine,
The University of Sydney and Australian
Injecting and Illicit Drug Users League
(AIVL).

Funding: Australian Government Department of Health and Ageing and NSW Health Department.

Location: Viral Hepatitis Clinical Research Program

Defining Risk and Mechanism of Permucosal Transmission for acute HCV Infection within high-risk populations (RAMPT-C Study)

The study aims to characterise permucosal transmission of HCV among HIV-positive and HIV-negative MSM, through clinical and molecular epidemiological analysis, with qualitative socio-behavioural and biological studies to explore the transmission mechanisms. The Study consists of three parts: Part I –Phylogenetics analysis, Part II – semen analysis, and Part III – Behavioural mechanism interview. An eligible patient can participate in Part I only or all three parts.

Status: Recruitment started in November 2009 at St. Vincent's Hospital, NSW.
The Alfred Hospital, VIC commenced recruitment in September 2010.
Enrolled/target: Part I – prospective

Enrolled/target: Part I – prospective component: 34/45; Part II – 16/65; Part III – 19/20

Personnel: Gail Matthews, Greg Dore, Pip Marks, Tanya Applegate, Amanda Erratt. Collaborators: Macfarlane Burnet Institute for Medical Research and Public Health, VIC; St Vincent's Hospital, NSW. Funding: National Health and Medical Research Council Project Grant and St. Vincent's Clinic Foundation Research Grant Location: Viral Hepatitis Clinical Research Program

Surveillance data from the highly specialised drugs program

Summary data of patients receiving antiretroviral treatments funded through the Highly Specialised Drugs Program are received from the Australian Government Department of Health and Ageing, and published in annual and biannual surveillance reports.

Status: Ongoing

Personnel: Hamish McManus, Stephen Wright

Collaborator: Highly Specialised Drugs
Program, Special Access and Coordination
Section, Pharmaceutical Access and
Quality Branch, Australian Government
Department of Health and Ageing
Location: Biostatistics and Databases
Program

Australian Chronic Hepatitis C Observational Study (ACHOS)

ACHOS was a clinic-based observational study of chronically infected hepatitis C patients, conducted in collaboration with the Viral Hepatitis Clinical Research Program. The study aimed to determine levels of hepatitis C treatment uptake and response, as well as identify factors that predict these outcomes. Recruitment of 1260 patients was completed in December 2009 and the study finished in December 2011. In 2011, treatment response rates and predictors of response were examined in a subcohort of previously treatment naive patients treated with standard therapy (pegylated interferon and ribavirin). Encouragingly, response rates in these 550 patients were similar to those achieved in clinical trials (SVR by intention to treat was 59.5%), despite the inclusion of patients with a broad range of co-morbid conditions including psychiatric illness and current IDUs. In a multivariate analysis, having genotype 2 or 3 (versus genotype 1) infection remained a statistically significant independent predictor of achieving an SVR (OR 2.36, 95% CI: 1.65-3.35) whilst having cirrhosis (OR 0.37, 95%CI: 0.18-0.74), HIV coinfection (OR 0.33, 95%CI: 0.12-0.93) or a higher BMI (OR 0.55, 95% CI: 0.34-0.89 for ≥ 30 versus ≤ 25 kg/m²) were significant independent predictors of non SVR. Personnel: Heather Gidding, Janaki Amin, Matthew Law, Greg Dore Collaborators: Network of 24 sites around Australia Funding: State and Territory Health **Departments Location:** Biostatistics and Databases

Hepatitis acceptability and vaccination incentives trial (HAVIT)

Funded by the NHMRC, the Hepatitis Acceptability and Vaccination Incentives Trial (HAVIT) is a two-arm open-label randomised controlled trial designed to determine the efficacy of modest incentive payments to increase HBV vaccine completion among PWID. Secondary endpoints are to evaluate the cost effectiveness of standard care compared to incentive payments as a

means of improving HBV vaccination series completion, identify the correlates of immunity, and assess hepatitis B knowledge and barriers to immunisation uptake and completion. Using a 3-dose accelerated schedule (0, 7 and 21 days), the trial was conducted at two inner-Sydney health services which target PWID and a community-based research outreach site. Data collection ceased in March 2011, with 442 PWID screened and 139 eligible and enrolled. A significantly higher proportion of participants randomised to the incentive than the control condition completed the vaccine series (87% versus 66%; p<.01). Results indicate that the provision of modest financial incentives improves immunisation completion among PWID.

Status: Data analysis and manuscript preparation currently in progress Personnel: Rachel Deacon, Mofizul Islam, Libby Topp, Lisa Maher

Collaborators: Kirketon Road Centre, South Eastern Sydney and Illawarra Area Health Service; Sydney South West Area Health Service; Redfern Drug Health Service, South West Sydney Area Health Service; Discipline of Addiction Medicine, University of Sydney; National Drug and Alcohol Research Centre

Funding: NHMRC Project Grant Location: Viral Hepatitis Epidemiology and Prevention Program

Hepatitis C vaccine preparedness studies

This program of work, which commenced in 2010, continues and extends earlier work conducted under the UNSW HCV Vaccine Initiative. The project aims to establish the feasibility of conducting field trials of candidate HCV vaccines with PWID. Specific aims are to 1) determine HCV incidence and spontaneous clearance in a prospective cohort of uninfected PWID; 2) identify associated risk factors; 3) evaluate retention strategies and factors associated with adherence to the study protocol; and 4) investigate immunisation acceptability, clinical trial literacy and willingness to participate in future vaccine trials in this group. The project includes the Hepatitis C Incidence and Transmission Study - community (HITS-c), an ongoing prospective observational study of HCV antibody negative PWID. By 2011, 150 PWID were enrolled and retention at 12 months was 86%. A total of 17 incident cases of HCV infection have been observed (9.3/100py; 95% CI 5.8-14.9).

Status: Ongoing

Personnel: Jarliene Enriquez, Anna Bates, Anh Pham, Len Liao, Ju Park, Sammy Chow, Bethany White, Sarah Wright, Lisa Maher Collaborators: Academic Medical Centre, University of Amsterdam and Infectious Disease Cluster, Amsterdam Public Health Service; Australian Intravenous and Injecting League (AIVL); Hepatitis Australia; Hepatitis C Council of NSW; Inflammatory Diseases Research Unit, School of Medical Sciences, UNSW; SEALS Microbiology, Prince of Wales Hospital; Burnet Institute; British Columbia Centre for Excellence in HIV/AIDS; University of California San Francisco.

Funding: NHMRC Project Grant **Location**: Viral Hepatitis Epidemiology and Prevention Program

SEXUALLY TRANSMISSIBLE INFECTIONS

A longitudinal study of bacterial vaginosis and Mycoplasma genitalium in young Australian women

Little is known about the epidemiology and natural history of bacterial vaginosis (BV) and nothing is known about *M* genitalium (MG) infection in Australian women. We seek to determine the prevalence, incidence and persistence of BV and MG in a general population of Australian women using the cohort established by the CIRIS study. This study is lead by the Centre for Women's Health and Society at University of Melbourne. Status: The cohort was closed in 2010. Two reports have been accepted for publication and further analyses are underway.

Personnel: Basil Donovan
Collaborators: Jane Hocking, Jenny
Walker, Christopher Fairley, Marcus
Chen, Catriona Bradshaw, Jane Gunn,
Marie Pirotta, Veerakathy Harindra, Lyle
Gurrin L, Kathy McNamee (University
of Melbourne); Sepehr Tabrizi, Suzanne
Garland (Royal Women's and Royal
Children's Hospitals, Melbourne)
Funding: NHMRC Project Grant
Co-location: Sexual Health Program and
Public Heath Interventions Research Group

Chlamydia incidence and re-infection study (CIRIS): a longitudinal cohort study of young Australian women

Chlamydia incidence and re-infection rates have never been studied in Australian women. We aimed to determine the incidence of chlamydia in a cohort of young women who initially screen negative, along with determining the re-infection rate of women who initially screen positive, in order to inform future population screening programs. This study involved the establishment of a cohort of young women attending a range of primary health care services who agreed to complete questionnaires and return self-collected vaginal swabs

for testing over the next 12 months. This study is lead by the Centre for Women's Health and Society at University of Melbourne.

Status: The cohort was closed in 2010. Two reports have been accepted for publication and further analyses are underway.

Personnel: Basil Donovan, John Kaldor Collaborators: Jane Hocking, Jenny Walker, Christopher Fairley, Marcus Chen, Jane Gunn, Marie Pirotta, Veerakathy Harindra, Lyle Gurrin L, Kathy McNamee, Hudson Birden (University of Sydney); Frank Bowden, Sepehr Tabrizi, Suzanne Garland

Funding: Australian Government Department of Health and Ageing Chlamydia Pilot Program Co-location: Sexual Health Program and Public Heath Interventions Research Group

How quickly are results returned from conventional testing in sexual health clinics, and what factors influence the timing?

Most sexual health clinics have policies where patients undergoing HIV screening. particularly those at higher risk, must return to the clinic to obtain their HIV results, rather than receive their results on the phone. Delays in re-attendance or recall to the clinic could allow inadvertent HIV transmission to occur, especially in the case of high-risk MSM clients. Using data from Sydney Sexual Health Centre, the largest sexual health clinic in NSW, an analysis will be conducted to quantify the average time from specimen collection for HIV screening to receipt of results from the lab, and the average time from result recept to the person returns to the clinic. We will explore difference according to patient risk and HIV results (positive, negative). This will provide an important baseline for future rapid HIV testing implementation studies.

Status: ongoing

Personnel: Damian Conway, Rebecca Guy Collaborators: Martin Holt, National Centre in HIV Social Research; Anna McNulty, Sydney Sexual Health Centre Funding: NHMRC program grant Co-location: Sexual Health Program and Biostatistics and Databases Program

Is azithromycin adequate treatment for asymptomatic rectal chlamydia? — an audit

We conducted a retrospective audit of all men who have sex with men (MSM) diagnosed with rectal chlamydia in 2009 to look at effectiveness of treating with single dose azithromycin.

Status: Final manuscript published in International Journal of STD & AIDS 2011.

Personnel: Fraser Drummond, Handan Wand, Rebecca Guy, Basil Donovan Collaborators: Nathan Ryder (Sexual Health and Blood Borne Virus Unit, Department of Health and Families, NT); Anna McNulty, Lynne Wray, Phillip Read (Sydney Sexual Health Centre) Location: Sexual Health Program

Cost analysis of rapid HIV testing in sexual health clinics

This analysis will assess the costs of both conventional and rapid HIV testing in terms of test kits and laboratory equipment, staff time and other ancillary costs to allow a direct comparison. A decision tree analysis will be used to assess the possible impact of provision of conventional HIV results by telephone and avoiding a second clinic visit through rapid HIV testing on the costs of HIV testing for MSM. The study is designed to assess whether rapid HIV testing can be shown to be cost saving compared to conventional serology testing.

Status: ongoing

Personnel: Damian Conway, Rebecca Guy Funding: NHMRC program grant Co-location: Sexual Health Program and Biostatistics, HIV Epidemiology and Prevention Program, Surveillance and Evaluation Program for Public Health

Syphilis testing in HIV positive men: a multi-site review

Clinical guidelines recommend three-monthly syphilis testing in HIV-positive men who have sex with men (MSM) as part of quarterly routine HIV management checks. However not all men are having quarterly HIV management checks, particularly if they have clinically stable for a number of years. This study aims to assess the syphilis testing frequency in HIV positive men against the frequency of HIV management checks at seven clinical sites in Melbourne and Sydney, Australia.

Status: Data have been received from all sites. Analysis is underway.

Personnel: Rebecca Guy, Handan Wand Collaborators: Andrew Carr, John McAllister, Karl Hesse (St Vincent's Hospital, Sydney); Marcus Chen, Christopher Fairley (Melbourne Sexual Health Centre/University of Melbourne); Anna McNulty, Chris Bourne (Sydney Sexual Health Centre); David Baker (East Sydney Doctors); Norm Roth (Prahran Market Clinic); BK Tee (The Centre Clinic); Jenny Hoy, Kerry Watson (The Alfred Hospital); Mark Stoove, Carol El-Hayek (Burnet Institute)

Co-location: Sexual Health Program and Biostatistics and Databases Program

Uptake and outcomes of chlamudia or gonorrhoea testing programs in nonclinical settings: a systematic review and meta-analysis

Primary care clinics play an important role in the prevention and management of sexually transmissible infections (STIs). A large proportion of young people attend primary care clinics each year for one reason or another and most chlamydial infections are diagnosed in this setting. However, despite the central role of primary care in chlamydia management, the proportion of sexually active young people attending these clinics who are offered screening at the time of their visit is suboptimal in many developed countries. This systematic review aims to examine the participation rate and outcomes of chlamydia and/or gonorrhoea testing programs among young people outside of clinical services.

Status: Data analysis near completion and a number of manuscripts are being prepared Personnel: Rebecca Guy, Muhammad Shahid Jamil, Hammad Ali, Basil Donovan, John Kaldor.

Collaborators: Jane Hocking (University of Melbourne); Heidi Bauer (Program Development and Evaluation, STD Control Branch, California Department of Public Health); Jennifer Walker (Melbourne Sexual Health Centre/University of Melbourne) Funding: nil

Co-location: Sexual Health Program and Biostatistics, Public Heath Interventions Research Group and Biostatistics and Databases Program

Extent and duration of unplanned antiretroviral treatment interruption in HIV-infected adults: a systematic review

HIV treatment as prevention' is fast becoming one of the key prevention strategies across the world. One of the potential comprising factors of 'treatment as prevention' is interrupted ART which results in an increasing viral load and HIV transmission may occur in the event of unprotected sex. This project aims to describe the prevalence, duration and predictors of treatment interruptions in both developed and developing country settings. Status: Manuscript in preparation Personnel: Hsin-Chun Lee, John Kaldor, Fraser Drummond, Basil Donovan, Rebecca Guy

Collaborators: David Baker **Location:** Sexual Health Program

Chlamydia re-test review

Repeat infection with Chlamydia trachomatis following treatment is common and increases the risk of sequelae. Despite clinical guidelines recommending re-screening within 3 months of treatment, re-screening rates



BETTE LIU A wealth of possibilities in a health database

Bette Liu's work stems substantially from the use of record linkage studies in infectious diseases. In Australia, unlike many other parts of the world, record linkage studies are made possible by the availability of health databases in most jurisdictions and the infrastructure to allow linkage. The size of these databases allows studies to be conducted that are more statistically powerful and less expensive than traditional clinic-based studies. "We can conduct large studies looking at health events and outcomes related to infections, that may be less common or occur a while after the original episode of infection," Dr Liu said.

One research project using record linkage is looking at chlamydia infection and its effects, particularly infertility and ectopic pregnancy. The project is designed over two stages, one using data in NSW and the second in Western Australia, where additional data on chlamydia testing will allow for additional research questions to he answered.

Dr Liu was awarded a grant from the Clive and Vera Ramaciotti Foundation in 2011 for another project using record linkage, to look at infections in the 45 and Up study, managed by The Sax Institute. Dr Liu is examining what factors in this large cohort, in which more than 250,000 adults were enrolled between 2006 and 2008, might be associated with some common notifiable diseases and their effects on health service use. A third studu using record linkage is looking at the long-term impact of the universal newborn hepatitis B vaccination program in the Northern Territory, which in 1990 was one of the first jurisdictions in the world to introduce such. Because women are routinely tested for hepatitis B as part of antenatal care, this study is looking at the prevalence of HBV among women giving birth in the Northern Territory.

Bette Liu MBBS(Hons) MPH(Hons) DPhil Senior Lecturer, Public Health Interventions Research Group

remains low. We undertook a systematic review to identify studies which compared rates of re-screening for repeat chlamydial infection between patients receiving and not receiving an intervention. **Status:** Review accepted for publication in

Sexually Transmitted Infections

Personnel: Rebecca Guy, Hammad Al, Basil Donovan, John Kaldor

Collaborators: Jane Hocking (University of Melbourne); Low Nicola (University of Bern, Switzerland); Bauer Heidi (California Department of Public Health); Jenny Walker (University of Melbourne) Jeffrey Klausner (University of California). Funding: Nil

Location: Sexual Health Program

Efficacy of interventions to increase the uptake of chlamydia screening in primary care: a systematic review

As most genital chlamydia infections are asymptomatic, screening is the main way to detect and cases for treatment. We undertook a systematic review of studies assessing the efficacy of interventions for increasing the uptake of chlamydia screening in primary care.

Status: Review published in BMC Infectious Diseases

Personnel: Rebecca Guy, Hammad Ali, James Ward, Basil Donovan, John Kaldor Collaborators: Simone Poznanski, Jane Hocking

Location: Sexual Health Program

Rapid HIV testing in men who have sex with men in sexual health clinics in Sydney

This is the first study to use rapid HIV tests in a clinical setting in NSW. The study will be undertaken at four public sexual health clinics in Sydney: Sydney Sexual Health Centre, Albion Street Centre, Clinic 16 Royal North Shore Hospital and Parramatta Sexual Health Clinic. The rapid HIV test used in the study is the Alere Determine HIV 1&2 Antigen/ Antibody Combo assay which gives a result in 21 minutes. Men who have sex with men who attend the study sites for HIV screening will be offered rapid HIV testing. Participants will undergo usual care in relation to sexually transmissible infection screening and conventional HIV serology testing. The participants' rapid HIV test results will be provided during their visit, and if the result is reactive they will be referred to the counsellor for support. The evaluation will assess acceptability of the rapid HIV testing process among clients and clinic staff, barriers to HIV testing, the impact of rapid HIV testing on client flow, the performance of the rapid test compared to conventional laboratory HIV serology, and the cost of rapid HIV testing

in a sexual health clinic settings, compared with standard of care.

Status: Ethics and site-specific approvals and staff training completed. Staff were trained in rapid HIV testing as part of a formal training workshop conducted in partnership with the National Serology Reference Laboratory and the St Vincent's Centre for Applied Medical Research. Rapid HIV testing commenced at the four sites in November 2011.

Personnel: Damian Conway, Rebecca Guy, Andrew Grulich

Collaborators: Martin Holt, Philip Cunningham, Don Smith, Phillip Keen, Stephen Davies, Deborah Couldwell, Anna McNultv

Funding: NHMRC

Location: Sexual Health Program

The Australian HIV Observational Database (AHOD) STI project

Sexual health clinics in AHOD will contribute data on sexually transmissible infections and treatment in patients recruited to AHOD.

Status: Protocol agreed with 11 sites involving around 900 patients. Protocol is under review by ethics committees. First data transfer and analysis in March 2011. Personnel: Kathy Petoumenos, Hamish McManus, Stephen Wright, Courtney Bendall, Matthew Law

Collaborators: Network of 11 Australian sexual health clinics

Funding: National Health and Medical Research Council, NIH, EMEA and pharmaceutical consortium **Location:** Biostatistics and Databases

Program

CLINICAL PUBLIC HEALTH

Notifiable Diseases and Reproductive Health

This project uses data linkage in NSW to examine the effects of commonly notified diseases including Sexually Transmitted Infections and Blood Borne Viruses on reproductive health outcomes in women. Status: Linked data obtained, analyses currently underway

Personnel: Bette Liu, Louisa Jorm, Christine Roberts, John Kaldor, Rebecca Guy, Basil Donovan

Collaborators: University of Western Sydney; Kolling Institute University of Sydney

Funding: NHMRC Post-doctoral fellowship; NHMRC Program Grant **Co-located:** Public Health Interventions Research Group and Sexual Health Program

Identifying predisposing factors for,

and the consequences of, common and emerging infectious diseases

This project will involve using the 45 and Up Prospective cohort study and data linkage to examine what factors may predispose adults to certain infections and what the longer term consequences of infections are on health outcomes and health service utilisation.

Status: Analyses underway Personnel: Bette Liu, John Kaldor, Emily

Collaborators: Sax Institute; Australian National University

Funding: Ramaciotti Foundation **Location:** Public Health Interventions Research Group

Economic, social and cross cultural issues in non-pharmaceutical protection of front line responders to pandemic influenza and emerging infections

Non-pharmaceutical interventions such as face masks are one of the few widely available strategies that can be offered to front line responders (FLR) in outbreak situations and that can be guaranteed to be available regardless of the type of infection. This study aims to 1) determine knowledge, attitudes and practices of FLR related to infection control and barriers to adherence to mask use; 2) conduct the first international RCT of the protection afforded to FLR by face masks against influenza and other respiratory viruses; 3) compare knowledge, attitudes and practices of FLR in Australia and Vietnam, and identify both culturally specific and universal issues that may affect the behaviour of FLRs in an emergency; 4) model the cost-effectiveness of surgical and N95 face masks; and 6) inform disease control policy nationally and internationally on the use of face masks in control of pandemic influenza, emerging infections or a bioterrorist attack.

Status: Trial completed and data analysis underway

Personnel: Lisa Maher Collaborators: School of Public Health and Community Medicine, UNSW (lead); Imperial College London, Faculty of Medicine; National Institute of Hygiene

and Epidemiology (NIHE), Hanoi; Westmead Hospital, Sydney. Funding: Australian Research Council Location: Viral Hepatitis Epidemiology and Prevention Program

DIAGNOSTICS

Suphilis point-of-care test multi-site laboratory evaluation

Rapid point-of-care (RPOC) tests

offer a new approach to ensuring that diagnosis and treatment of syphilis is timely across the diverse geographic and social settings of PNG. Until recently, the only commercially available RPOC tests for syphilis have been recombinant treponemal antigen assays, which are unable to differentiate between pasttreated and recent syphilis, so are likely to result in substantial overtreatment if used in endemic settings. However, technological advances have led to the development of new RPOC tests which detect recent, as distinct from past treated infection. These newer tests will be evaluated in this study and compared with currently available syphilis POC tests and gold standard tests.

Status: Evaluation commenced May 2011; testing and data entry complete in Sydney; in progress in Melbourne and PNG. Personnel: Rebecca Guy, Basil Donovan, John Kaldor, Louise Causer, Fraser Drummond, Philip Cunningham, Damian Conway

Collaborators: Claire Ryan, Tawarot Kurumop, Kit Fairley, David Anderson, Mary Garcia, John Reeder, Peter Robertson, David Leslie, Jennie Leydon, Theo Karapanagiotidis Funding: NHMRC STI Program Grant **Co-located**: Public Heath Interventions

Research Group and Sexual Health Program

STI Point-of-Care Test Field study

To prepare for the large RCT, a range of point-of-care tests have undergone evaluation in a laboratory setting to assess performance and operational characteristics. Three of these tests (a PCR test called the 'GeneXpert' and two traditional immunochromatographic lateral flow tests, called the 'DIAQUICK CT' and 'Lateral Flow Gonorrhoea Card Test') have been identified as potentially suitable for the RCT. These tests will now be evaluated in a 'real life' field setting. Two remote Aboriginal communities in Queensland will participate. When all the testing has been completed at participating services, pointof-care tests results will be compared to the reference test results. All activities will be planned in consultation with health service staff, with the goal of integrating them into the community screening program, and causing minimal disruption. Trained study staff will perform the point-of-care tests for the field evaluation. The results of this field evaluation will inform test selection for the RCT, ensuring that the best available pointof-care test is adopted for the RCT.

Status: Planning/site selection underway. Personnel: Rebecca Guy, James Ward, Basil Donovan, John Kaldor, David Wilson, David Regan, Handan Wand, Louise Causer. Collaborators:Lisa Natoli, David Anderson, Belinda Hengel, David Whiley,

Sepehr Tabrizi, Christopher Fairley, Mark Shephard, Arun Menon, Angela Cooper, Monika Buhrer Skinner Funding: NHMRC project grant Co-located: Sexual Health Program, Aboriginal and Torres Strait Islander Health Program, Public Health Interventions Research Group, Biostatistics and Databases Program, Surveillance and Evaluation Program for Public Health

Chlamydia and gonorrhoea point-ofcare test laboratory evaluation

Nucleic acid amplification tests (NAAT) are now the mainstay for laboratory-based screening of Chlamydia and gonorrhoea. While sensitive and highly suitable for screening, NAAT methods need to be performed in dedicated clinical laboratory facilities. The consequence of this is that the benefits of NAAT methods are lost when testing remote communities, as delays in result turnaround time and subsequent treatment of positive patients impinge upon disease control. For these reasons, there is renewed interest in point-of-care (POC) tests. In this pilot study, we examined the sensitivity of two Chlamydia POC assays. Twenty eight Chlamydia NAAT-positive urine samples, representing a range of organism loads based on NAAT cycle threshold values (22 to 38 cycles), being a semi-quantitative marker of DNA load, were tested in two commercial POC methods. In addition, 10-fold dilutions of Chlamydia culture were tested by both POCs and a Chlamydia NAAT assay. Differences between the performances of the two POC methods were observed. Nevertheless, there was a clear relationship between the cycle threshold values of the NAAT and the results of the POC assays; only samples with cycle threshold values of 30 or less (ie higher organism loads) were readily detected by the POC assays. The results of this pilot study show that the main factor impacting upon the sensitivity of these Chlamydia POC assays is organism load. Status: Validations are ongoing. Personnel: Rebecca Guy, James Ward, Basil Donovan, John Kaldor. Collaborators: David Whiley, J Jacobs, Theo Sloots, Sepehr Tabrizi, Christopher Fairley, David Anderson

Fairley, David Anderson
Funding: NHMRC STI Program Grant
Co-located: Sexual Health Program, Public
Heath Interventions Research Group and

Aboriginal and Torres Strait Islander Health

Program

MATHEMATICAL MODELLING

Mathematical modelling of human papillomavirus transmission

This research involves the design, implementation and analysis of mathematical models for assessing the health-economic impact of Human papillomavirus (HPV) vaccination, screening and testing policies in Australia. Status: A general HPV modelling framework has been completed allowing for the transmission of multiple HPV types to be modelled. The model has been used to estimate the long-term impact of the current female-only vaccination program, and a theoretical male + female vaccination program, on the incidence of genital warts due to HPV types 6 and 11 as well as the incidence of infection due to HPV types 6, 11, 16, and 18. The results of this work were reported in a Technical Report and formed part of a submission to the Pharmaceutical Benefits Advisory Committee for males to be included in the National HPV Immunisation Program. The model is being further developed to incorporate progression to HPV-related disease (e.g., cervical intraepithelial neoplasia and cervical cancer). New methodology has been developed to facilitate the calibration of the model in a Bayesian framework. Individual-based models have been developed to investigate the potential impact of HPV vaccination on non-vaccine types and to assess the implications of changes in HPV ecology for surveillance.

Personnel: David Regan, Matthew Law, Andrew Grulich, John Kaldor, Igor Korostil, Edward Waters

Collaborators: CSL Limited, Victorian Cytology Service Incorporated, University of Melbourne, La Trobe University

Funding: Australian Research Council, CSL Limited, Victorian Cytology Service Incorporated

Location: Biostatistics and Databases Program

Mathematical modelling of bacterial STIs in Australian sub-populations

This research involves the design, implementation and analysis of mathematical models for assessing the health economic impact of public health interventions for the control and prevention of chlamydia, gonorrhoea, syphilis and trichomaniasis in different populations in Australia. The models will address the STIs that are of most importance in heterosexual, MSM, and indigenous populations, respectively. **Status:** A range of compartmental and individual-based models have been developed to evaluate a wide range of screening and intervention strategies for the control and prevention of bacterial STIs in remote individual communities and to assess the potential importance of community mobility in sustaining high prevalence of STIs in these communities. A model of gonorrhoea transmission, incorporating infection at different anatomical sites, is in development to assess the potential impact of moving from culture to NAAT as the primary diagnostic

Personnel: David Regan, David Wilson, Ben Hui, Matthew Law, Rebecca Guy, Basil Donovan, John Kaldor Collaborators: University of Melbourne, La Trobe University, Deakin University Funding: National Health and Medical Research Council Location: Biostatistics and Databases

Location: Biostatistics and Databases Program

PREVENTION

HIV vaccine preparedness cohort study (Health in Men study)

A vaccine preparedness cohort study of HIV-negative homosexual men.

Status: During 2001-2004, 1,427 HIV negative men were enrolled and active follow up ceased in 2007. More than 40 peer reviewed publications have resulted

from this study, and in 2011, further data analysis and reporting took place. **Personnel:** Andrew Grulich, Garrett

Prestage, Iryna Zablotska, Mary Poynten, David Templeton, Jeff Jin

Collaborators: National Centre in HIV Social Research; Australian Federation of AIDS Organisations; AIDS Council of NSW Funding: NHMRC: NSW Health

Department

Location: HIV Epidemiology and

Prevention Program

The Opposites Attract study

A four-year cohort study to examine the effect of HIV treatment and HIV viral load on the rate of HIV transmission in 240 HIV serodiscordant gay couples.

Status: In 2011, the collaborative structure was established, and more than 15 practices agreed to participate. Ethics approvals were obtained and the study protocol finalised.

Personnel: Andrew Grulich, Ben Bavinton, Jeff Jin, Iryna Zablotska, Garrett Prestage.

Collaborators: St Vincent's Hospital;
Melbourne Sexual Health Centre; Positive
Life NSW; Taylor Square Private Clinic;
RPA Sexual Health; Holdsworth House
Medical Practice; Prahran Market Clinic;
East Sydney Doctors; Northside Clinic;
Sydney Sexual Health Centre; Centre
Clinic; Dr Doong's Surgery; East Sydney
Doctors; The Alfred Hospital; O'Brien
Street Practice; Gladstone Road Medical
Centre; Cairns Sexual Health.
Funding: NHMRC Project grant
Location: HIV Epidemiology and

Modelling interventions to prevent syphilis infection and their acceptability among gay men

Prevention Program

This study uses mathematical modelling to estimate the likely impact of a range of interventions designed to reduce rates of syphilis infection among gay men, and uses both quantitative and qualitative research methods to assess how

ANNUAL REPORT 2011 ANNUAL REPORT 2011 ANNUAL REPORT 2011

acceptable such interventions would be to the target population.

Status: Data collection is completed: 2,306, gay men were recruited to answer specific questions about their knowledge of syphilis and their attitudes toward a range of possible interventions through an online survey and were then invited to participate in three focus groups in Sydney and Melbourne. Data from mathematical models were considered alongside the findings from the acceptability study. A report of the findings was published and further data analysis and reporting is ongoing. Personnel: Garrett Prestage, Jack Bradley, Ian Down, David Wilson, Richard Gray, Alex Hoare

Collaborators: Australian Research Centre in Sex Health and Society Funding: Commonwealth Department of Health and Ageing, NSW Health Department, Victorian Department of Health

Location: HIV Epidemiology and Prevention Program

Modelling interventions to prevent HIV infection and their acceptability among gay men in NSW

This study uses mathematical modelling to estimate the likely impact of a range of interventions designed to reduce rates of HIV infection among gay men, and uses both quantitative and qualitative research methods to assess how acceptable such interventions would be to the target population. 600 gay men were recruited to answer specific questions about their

attitudes toward a range of possible interventions through an online survey and were then invited to participate in five focus groups in Sydney. Data from mathematical models were considered alongside the findings from the acceptability study.

Status: Data collection completed; data analysis and reporting is ongoing Personnel: Garrett Prestage, Jack Bradley, Ian Down, David Wilson, Richard Gray Collaborators: Australian Research Centre in Sex Health and Society Funding: NSW Health Department Location: HIV Epidemiology and Prevention Program

Risk factors for HIV seroconversion (The Seroconversion Study)

A study of risk factors for HIV infection among people recently diagnosed with HIV infection.

Status: During 2011, online and direct enrolment continued in Oueensland. Victoria, New South Wales, South Australia and Western Australia, Tasmania and the Australian Capital Territory. In total, 414 individuals with recent primary HIV infection were enrolled into the study by the second week of December, 2011. Analysis and reporting has commenced and is ongoing. Funding has been provided to continue the study through 2012 and extend to include women recently diagnosed with HIV. Funding is currently being sought to continue data collection for a further three years. Personnel: Garrett Prestage, Ian Down,

Collaborators: National Centre in HIV Social Research; Australian Research Centre in Sex, Health and Society; Curtin University; State AIDS Councils, State PLWHA organisations, and State Health Departments.

Funding: Queensland Health; Victorian Department of Health; NSW Health Department; Western Australian Health Department; South Australian Department of Health; Tasmanian Department of Health; Health Department of the ACT Location: HIV Epidemiology and Prevention Program

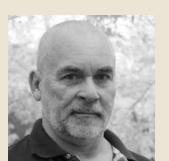
PEP users in Sydney, NSW: pilot cohort

A cohort of PEP users at St. Vincent's Hospital, Sydney, with quantitative behavioural data collection at enrolment when men request PEP, at the completion of PEP course and six months after completing the PEP course. Aims: to assess ability to enrol and maintain a cohort of PEP users and to compare sexual practices of participants before, during and after their PEP course.

Status: In 2011, the study protocol and data collection instrument were developed, and data collection started in June 2011. By the end of 2011, the cohort enrolled 18 participants and completed their first follow-up.

Personnel: Iryna Zablotska, John McAllister Collaborators: St Vincent's Hospital PEP clinic

Funding: Kirby Institute Location: HIV Epidemiology and Prevention Program



GARRETT PRESTAGEUnderstanding risk behaviour

Associate Professor Garrett Prestage has been involved in research into the risk behaviours of gay men for three decades. In that time, he has worked on each generation of a major Kirby Institute study, commencing in 1992 with the *Sydney Men and Sexual Health* study, or SMASH. His most recent work is on the *HIV Seroconversion Study*. Much of his work is

conducted in collaboration with the Australian Research Centre in Sex, Health and Society in Melhourne.

Jack Bradley, Jeff Jin, Andrew Grulich

"The earlier versions of the Seroconversion study have given us incredibly valuable data," Professor Prestage said. "We are talking to recently diagnosed people, the key people we want to know about." This online quantitative and qualitative study, with the option of a face-to-face interview, is funded until 2012 but ongoing funding for this key study is being sought. "The data we collect and analyse about individual experiences with HIV is very valuable in informing the response, particularly by educators in the development of further prevention campaigns. We need to understand people's thinking about risk and risk behaviours." Professor Prestage is instrumental in other studies of risk behaviours in gay men. "The PASH (Pleasure and Sexual Health) Study was a survey of gay and bisexual men about their experiences of and attitudes toward sex and pleasure," he said. "It provided valuable information about the knowledge and behaviour of these men in relation to risk

reduction, pleasure seeking, and basic knowledge." Planning is also underway for another study called *Opposites Attract*. "This is a globally unique study exploring HIV treatments, viral load, and HIV transmission in serodiscordant gay male relationships, that is, where one man is HIV-negative and the other man is HIV-positive," Professor Prestage said. "We know that using HIV therapy reduces the likelihood of HIV transmission, and this study will look at the effect of treatment on transmission within the relationship, and on how they negotiate risk." Participants in *Opposites Attract* will be followed for four years to track the likelihood of transmission.

"The social and health issues have changed over the years for gay men," he said. "Issues around testing and treatment are now key, and these individuals are uniquely placed to give us this information. It's essential information for policy makers, funders and educators."

Associate Professor Garrett Prestage BA, PhD, JP HIV Epidemiology and Prevention Program

Staying safe: How do long term injecting drug users avoid hepatitis C infection?

Building on data collected from established longitudinal cohort of PWID this project is focussed on developing hepatitis C virus (HCV) prevention programs to assist both new and experienced PWID to develop and implement strategies to remain uninfected with HCV. Through collaborations with Harm Reduction Victoria and the Centre for Population Health at Burnet Institute, data collected from this project is also being used to assist people who are infected with HCV but who clear the virus to continue to inject to avoid reinfection. In-depth interview data allows comparisons of PWID who have acquired HCV and those who have not ensuring utility for all PWID.

Status: Ongoing

Personnel: Peter Higgs, Lisa Maher Collaborators: The Centres for Population Health, Burnet Institute; Harm Reduction Victoria.

Funding: NHMRC Training Fellowship; UNSW Faculty of Medicine Small Grant Scheme

Location: Viral Hepatitis Epidemiology and Prevention Program

Australian Chlamydia control effectiveness pilot (ACCEPt) study

Current national guidelines for general practitioners (GPs) recommend all sexually active people aged 15-29 years old receive annual testing for chlamydia. More than 80% of 15-29 year olds attend a GP each year less however less than 10% are being tested for chlamydia by their GP. ACCEPt involves a multifaceted intervention in the GP setting to maximise testing rates and annual testing in sexually active 16 29 year olds to see if it can reduce the prevalence of chlamydia infections and its associated complications such as PID. This is the first trial of this nature in Australia and is being led by the Centre for Women's Health, Gender and Society at University of Melbourne in collaboration with a large consortium of experts including a number of researchers from the Kirby Institute. In addition, the Kirby Institute has been contracted to develop the protocol for Program Evaluation, conduct Mathematical Modelling, and assist with implementation.

Status: Project officers appointed and site recruitment in Victoria, NSW, and southern Queensland began in 2010. By November 2011, 48 postcodes had been recruited.

Personnel: Rebecca Guy, John Kaldor, Basil Donovan, David Regan, David

Wilson, Matthew Law, Rebecca Lorch, Lisa Edward, James Ward, Belinda Ford **Collaborators:** Jane Hocking, Meredith Temple-Smith, Jenny Walker, Simone Poznanski, Alaina Vaisey, Dyani Lewis, Jane Gunn, Christopher Fairley, Nicola Low, Marian Pitts, Marion Saville, Dorota Gertig, Sepehr Tabrizi, Margaret Hellard **Funding:** Australian Government Department of Health and Ageing Chlamydia Pilot Program. Further funding from NHMRC Project grant from 2011. Co-location: Sexual Health Program, Public Heath Interventions Research Group, Biostatistics and Databases Program, Aboriginal and Torres Strait Islander Health Program

eTEST An initiative to enhance STI Testing in gay men

Regular testing of sexually active gay men is required to prevent ongoing transmission of STIs. This project assesses whether a multi-faceted intervention which involves software designed to encourage clinicians to test through passive prompts, SMS recall messaging, audit tools, education and incentives for testing can increase testing rates in general practice. eTEST will take place in Sydney among 10-15 GP clinics with the aim of increasing HIV/ STI testing to at least two times per year in high-risk gay men, four times per year in HIV positive men, and re-testing after a chlamydia and gonorrhea infection. These aims are in accordance with the testing guidelines for men who have sex with men. **Status:** Tailored interventions have been introduced to several clinics in Sydney and recruitment of other suitable locations continues.

continues.

Personnel: Rebecca Guy, Denton
Callander, Larissa Lewis, Handan Wand,
John Kaldor, Basil Donovan
Collaborators: Chris Bourne (Sydney
Sexual Health Centre); Vijay Ramanathan
(Central Sydney GP Network); Jane Hocking
(University of Melbourne); Mark Stoove
(Burnet Institute); John de Wit, (National
Centre in HIV Social Research); Cathy Pell,
(Taylor Square Private Clinic); Liza Doyle,
(Australasian Society for HIV Medicine);
Geoff Honnor (ACON); Barry Edwards
(NSW Health); Sonny Williams (Positive
Life)

Funding: NSW Health Co-location: Sexual Health Program, Biostatistics and Databases Program and Public Heath Interventions Research Group

Chlamydia re-test trial

Chlamydia re-infection is common in women and men. Chlamydia re-infections increase the risk of chlamydia-related sequelae such as pelvic inflammatory disease (PID) and infertility, when compared to initial infection, and in men who have sex with men (MSM) has been associated with an increased HIV seroconversion risk. Clinical guidelines in Australia recommend that for all people treated for chlamydia a repeat test is conducted in 3 months. This randomised controlled trial will assess the effectiveness of a SMS reminder and home-based self-collected samples (home group) to increase the proportion of patients re-tested after a chlamydia infection, compared to an SMS reminder and clinic testing (clinic group). Approximately 600 patients diagnosed with chlamydia across two sexual health clinics will be randomised to the home group or the clinic group.

Status: Recruitment commenced in 2011. Personnel: Kirsty Smith, Rebecca Guy, Handan Wand, Basil Donovan, John Kaldor Collaborators: Christopher Fairley, Marcus Chen, Catriona Bradshaw, Karen Worthington, Jane Hocking, Anna McNulty, Phillip Read, Simon Wright, Samantha Morgan, Sepehr Tabrizi, Suzanne Garland, Bill Rawlinson, Marion Saville, Gary Rickard

Funding: NHMRC STI Program Grant Co-location: Sexual Health Program, Public Heath Interventions Research Group and Biostatistics and Databases Program

A randomised trial of rapid pointof-care tests for chlamydia and gonorrhoea infections in remote Aboriginal communities

Many remote and isolated communities in Australia continue to experience higher rates of chlamydia and gonorrhoea despite focused efforts at STI prevention and control. In order to interrupt disease transmission and reduce the risk of complications, early diagnosis and treatment is important. However in many remote communities, there are long delays between clinical testing and the provision of treatment, due to both distance from laboratories and difficulties in recalling patients when results arrive. This study will be the first to trial the addition of point-of-care testing to standard diagnostic procedures with aims of improving the interval time to treatment and decreasing rates of persistent chlamydia and gonorrhoea infections (many of which are due to re-infection). The randomised controlled study will take place in remote communities in Queensland and Western Australia. **Status:** Planning/site selection underway.

Personnel: Rebecca Guy, James Ward, Basil Donovan, John Kaldor, David Wilson, David Regan, Handan Wand, Louise Causer.

Collaborators: Lisa Natoli, David

Anderson, Belinda Hengel, David Whiley, Sepehr Tabrizi (Royal Women's Hospital); Christopher Fairley, Mark Shephard, Lisa Bastian, Sharon Clews, Jarran Heywood Funding: NHMRC project grant Co-located: Sexual Health Program, Aboriginal and Torres Strait Islander Health Program, Public Health Interventions Research Group, Biostatistics and Databases Program and Surveillance and Evaluation Program for Public Health

Genital chlamydia infection in young people: a review of the evidence

The Sexual Health Program was commissioned to do a literature review on chlamydia, by the NSW Ministerial Advisory Committee on HIV and STIs (CAS) Health Promotion Sub-Committee. The purpose of the review is to inform an action plan being prepared by the Chlamydia Working Group of the CAS Sub-committee. This action plan will direct NSW Health's response to Chlamydia and will thus ensure that the chlamydia control strategies are evidencebased. This review looks at various aspects of chlamydia including: epidemiology. sequelae, interventions to increase testing and retesting, health promotion interventions, and level of coverage required to make an impact. Status: Final report submitted in

November 2011.

Personnel: Rebecca Guy, Hammad Ali,
Bette Liu, Basil Donovan, John Kaldor,
James Ward, David Regan.

Collaborators: Jane Hocking, Chris Bourne Funding: NSW Health

Co-location: Sexual Health Program, Public Heath Interventions Research Group, Aboriginal and Torres Strait Islander Health Program, Biostatistics and Databases Program

SOCIAL, BEHAVIOURAL AND CULTURAL RESEARCH

HIM (Health in Men) study: Lymphogranuloma Venereum in Australian homosexual men.

A study to examine the prevalence of Lymphogranuloma Venereum. **Status:** Analysis and final reporting occurred in 2011

Personnel: David Templeton, Andrew Grulich, Garrett Prestage, Basil Donovan, Jeff Jin.

Collaborators: Royal Women's Hospital, Melbourne.

Funding: NIH, NHMRC, DoHA, NSW Health

Location: HIV Epidemiology and Prevention Program

Periodic surveys of HIV risk behaviour (The Gay Community Periodic Surveys)

A study of sexual risk behaviour, HIV and STI testing, and illicit drug use among gay men in Australia. In 2011, more than 9000 behavioural questionnaires surveys were completed in Sydney, Melbourne, Adelaide, Perth, Canberra and Brisbane, as well as in certain regional areas of Queensland.

Status: Ongoing analysis and reporting occurred in 2011.

Personnel: Garrett Prestage, Iryna Zablotska, Ian Down, Andrew Grulich Collaborators: National Centre in HIV Social Research; State AIDS Councils; State PLWHA organisations; State Health Departments

Funding: State and Territory Health Departments

Location: HIV Epidemiology and Prevention Program

The PASH (Pleasure and Sexual Health) Study: understandings of risk among gay men

A study of beliefs and attitudes about risks and consequences of HIV infection in Australian gay men. Data collection is completed: In total, 4125 men were referred to the survey, of whom 2306 provided sufficiently complete survey questionnaires for inclusion in analysis. 40 men were interviewed in depth. A comprehensive community report was published in May 2010.

Status: Further data analysis and reporting is ongoing.

Personnel: Garrett Prestage, Jack Bradley, Ian Down

Collaborators: Australian Research Centre in Sex, Health and Society; Curtin University; National Centre in HIV Social Research; State AIDS Councils, State PLWHA organisations, and State Health Departments.

Funding: Victorian Department of Health;
NSW Health Department; Western
Australian Health Department; South
Australian Department of Health
Location: HIV Epidemiology and Prevention

Sexually adventurous men's study (SAMS)

A study to document and record the work of the Sexually Adventurous Men's Projects of the Victorian AIDS Council and PLWHA Victoria, and to investigate the beliefs and behaviours among gay men in sexually adventurous networks in Melbourne.

Status: Processes and record-keeping documentation have been established, and data collection is ongoing. Interview schedules have been developed.

Personnel: Garrett Prestage.

Collaborators: Australian Research Centre in Sex Health and Society; Victorian AIDS Council; PLWHA Victoria.

Funding: Victorian Health Department **Location:** *HIV Epidemiology and Prevention Program*

Defining risk and mechanisms of permucosal transmission of acute HCV infection within high-risk populations (RAMPT-C Studu)

A study of HCV transmission and its risk factors among homosexual men. HIV-positive gay men recently diagnosed with hepatitis C were recruited to answer specific questions about their knowledge of hepatitis C and their beliefs about its transmission.

Status: Data collection will continue with an overseas component (London). Australian data collection was completed in December 2011.

Personnel: Garrett Prestage, Ian Down, Jack Bradley, Mark Danta, Gail Matthews, Tanya Applegate

Funding: NHMRC

Location: HIV Epidemiology and Prevention Program

Out on the Reef

This is a study of the experiences of gay men living with and affected by HIV in North Queensland. Gay men living in North Queensland were invited to participate in three focus groups and in one-on-one key informant interviews in Cairns. Data collected through other studies that include men from this region are being reanalysed to identify specific issues among men in this region. A report of the findings was presented at a community forum in August, 2011.

Status: Data collection is completed. Data

analysis is ongoing.

Personnel: Garrett Prestage, Ian Down
Collaborators: Australian Research Centre

in Sex Health and Society

Funding: Queensland Department of
Health

Location: HIV Epidemiology and Prevention Program

Monogamy: meanings and practices among gay men

This is a study of gay men's attitudes toward and beliefs about monogamy, and how that affects the kinds of relationships they form. Gay men are being interviewed in depth about the concept of monogamy and their own relationships.

Status: Data collection is ongoing.
Personnel: Garrett Prestage
Collaborators: Australian Research Centre
in Sex Health and Society

Funding: NHMRC

Location: HIV Epidemiology and Prevention Program

Predictors of PEP awareness and use in Australian Gay Community (Australian Gay Community Periodic Surveys)

A quantitative study of trends in PEP awareness and use among gay men in Australia. In 2011, all behavioural questionnaires completed by the participants in Sydney, Melbourne, and Brisbane Gay Community Periodic Surveys were analysed in parallel with the analyses of data from the PEP clinic in St. Vincent's hospital. Analyses of PEP use were published in the Journal of AIDS in 2011. Status: The analyses of PEP awareness and literacy are ongoing..

Personnel: Iryna Zablotska, John mcAllister

Collaborators: National Centre in HIV Social Research; State AIDS Councils; State PLWHA organisations; State Health Departments

Funding: State and Territory Health Departments

Location: HIV Epidemiology and Prevention Program

Review of the history and methodology of the Australian behavioural surveillance and its implications for policy and prevention (Australian Gay Community Periodic Surveys)

Repeated cross-sectional surveys of gaycommunity attached men; review of the history, methodology, behavioural trends and the use of data for policy development In 2011, we completed the review of the history and methodology of the Australian behavioural surveys, compiled the review of behavioural trends and their use in policy development.

Status: Analyses were completed and published in 2011.

Personnel: Iryna Zablotska, Garrett Prestage

Collaborators: National Centre in HIV Social Research; State AIDS Councils; State PLWHA organisations; State Health Departments

Funding: State and Territory Health Departments

Location: HIV Epidemiology and Prevention Program

Study of gay community attachment among Australian gay men and its implications for behavioural surveillance and research (Australian Gay Community Periodic Surveys)

Repeated cross-sectional surveys of gaycommunity attached men (behavioural surveillance); analyses of trends and predictors of gay community attachment and their implications for further behavioural surveillance and research in Australian gay communities. Status: This review of the information

about gay community attachment in Australian gay communities was completed and published in 2011. Personnel: Iryna Zablotska, Garrett Prestage

Collaborators: National Centre in HIV Social Research; State AIDS Councils; State PLWHA organisations; State Health Departments

Funding: State and Territory Health Departments

Location: HIV Epidemiology and Prevention Program

Social norms regarding HIV/STI risk and risk reduction behaviours among men who have sex with men in Australia (CONNECT study)

A cross-sectional quantitative study using respondent-driven sampling to recruit homosexual men in Sydney, Melbourne and Perth to investigate norms regarding sexual practices across different social/sexual networks. During 2011, the study continued recruitment of the participants using Respondent Driven Sampling. Status: In 2011, the review of all available data about norms regarding sexual practices among gay men has been completed, presented and submitted for publication.

Personnel: Iryna Zablotska, Garrett
Prestage, Michelle McKechnie, Ben
Bavinton, Matthew O'Dwyer
Collaborators: National Centre in HIV
Social Research; Curtin University, AIDS
Council of NSW (ACON), Victorian AIDS
Council (VAC), AIDS Council of Western
Australia (WAAC), Australian Federation
of AIDS Organizations (AFAO)
Funding: NHMRC (2010-2012)
Location: HIV Epidemiology and

Mapping gay community networks in Sydney, NSW

Prevention Program

Mixed-method cross-sectional study involving interviews of opinion leaders representing different networks and organisations of gay men in Sydney to describe the structure and functioning of



DOROTHY MACHALEK

Applying the lessons from one HPV-linked cancer to another

It has been estimated that rates of anal cancer in homosexual men are substantially higher than rates of cervical cancer are in women. Because of this, an anal cytology-based screening program has been proposed, in a manner analogous to cervical screening. Cervical screening based on

detection of cytological abnormalities has been used for 60 years, and since the discovery of human papillomavirus (HPV), many studies have described the natural history of cervical HPV infection. However, while we have estimates of the prevalence and incidence of anal HPV infection and AIN (anal intraepithelial neoplasia) in homosexual men, the natural history of anal HPV infection and its progression to anal cancer in homosexual men is unclear.

Dorothy Machalek is a PhD student working on the HIV Epidemiology and Prevention Program's SPANC project: Study of the Prevention of Anal Cancer, a large study of anal precancerous lesions in homosexual men over the age of 35. Dorothy's recent literature review has shown that insufficient evidence exists to justify the current proposals for anal cancer screening in homosexual men, based on the model of cervical cancer screening.

"Although a lot of lessons have come from cervical cancer research, we still don't know a lot about the natural history of anal HPV infection and AIN

in this population," Dorothy said. "The review showed that anal HPV and anal cancer precursors are very common in homosexual men, but the rates at which they progress to cancer seem to be much lower than they are for cervical precancerous lesions. We propose that screening for and treatment of AIN should only take place inside good-quality prospective research studies, so that we can build the evidence to inform anal cancer screening guidelines for homosexual men." The SPANC study will provide important information on the natural history of anal HPV infection and AIN in homosexual men. The study results will be used to inform possible development of guidelines for carrying out screening programs in this population.

Dorothy Machalek BSc (Hons), MPH candidate HIV Epidemiology and Prevention Program Thesis title: The natural history of anal human papillomavirus infection and anal cellular abnormalities in mature aged homosexual men Supervisors: Andrew Grulich, Jeff Jin, Mary Poynten

the Sydney gay community. **The** protocol and data collection instrument were developed. Data collection has commenced and 130 gay community groups and networks have been interviewed by the end of 2011.

Status: Preliminary analyses of data have started.

Personnel: Iryna Zablotska, Garrett Prestage, Michelle, McKechnie, Ben Bavinton, Matt O'Dwyer

Collaborators: AIDS Council of NSW (ACON)

Funding: NSW Health

Location: HIV Epidemiology and Prevention Program

The Healthy Liver Campaign

This study is to evaluate the impact of a Healthy Liver Campaign on HCV knowledge, assessment and treatment among people attending OST clinics. Among people attending OST clinics, the aims of the study are to assess knowledge of liver disease and associated factors; assess willingness and barriers to receiving assessment for liver disease and associated factors; evaluate the impact of a Healthy Liver Campaign on knowledge of liver disease, liver disease assessment and uptake of interventions; and develop guidelines for liver disease and FibroScan assessment in the OST setting.

Status: This study will be submitted to HREC for review.

Target: 480

Personnel: Greg Dore, Jason Grebely, Pip Marks, Michelle Micallef Collaborators: National Centre in HIV Social Research (NCHSR); Centre for Health Initiatives, University of Wollongong; Australian Injecting and Illicit Drug Users League (AIVL); Hepatitis C Council of NSW and NSW Users and AIDS Association (NUAA).

Funding: Schering Plough and University of NSW Major Research Equipment and Research Infrastructure (MREII) grant Location: Viral Hepatitis Clinical Research Program

Staying safe Sydney

This study aims to explore the social practices and conditions associated with long term avoidance of hepatitis C virus infection. During 2011 a further 12 participants from South West Sydney were recruited into Stage Two. Initial interviews explored participants' life histories, focussing on constructing a 'timeline' which was later reproduced graphically using 'Timeline Maker Professional' software. Follow up interviews focused on drug use over time and place with the 'timeline' serving as a prompt. Data from the 23 completed interviews is being coded



MIHAELA IVAN

Between clinical practice and public health

Mihaela Ivan joined the Viral Hepatitis Epidemiology and Prevention Program in 2011 as part of a new initiative sponsored by the Kirketon Road Centre (KRC) and the South Eastern Sydney Local Health District. Dr Ivan is a public health physician and medical epidemiologist. KRC is a primary health care centre providing health services to marginalised populations in the Kings Cross area. Dr Ivan's research projects are positioned at the interface between clinical practice and front line public health. One research project is the establishment and evaluation of a pilot opioid overdose prevention and management intervention. "Overdose among people who inject drugs is associated with significant mortality – more than 300 deaths a year around Australia," Dr Ivan said, "and the morbidity can include brain damage and other organ failure." Naloxone is an antagonist medication which reverses the effects of opioid overdose. The pilot program, to start in 2012, will be implemented in two clinical settings, KRC and a drug treatment clinic, the Langton Centre. This intervention comprises an overdose management training session for injectors and their carers, and the prescription of 'take home' naloxone packs. Dr Ivan's evaluation of this intervention will assess its feasibility and acceptability, and will include a prospective observational study to assess knowledge and attitudes regarding overdose prevention, before and after training. A second project is an assessment of, and prevention of, injection-related injury and disease (IRID) among people who inject drugs (PWID). IRID among PWID is increasingly recognised as a significant health issue for this population. "This project will identify the range of IRID and their prevalence, both lifetime and recent, among PWID attending KRC," Dr Ivan said, "as well as the risk factors associated with IRIDs. It will also develop appropriate interventions to prevent and treat IRID and to evaluate these interventions and disseminate project findings."

Dr Mihaela Ivan MD MSc FAFPHM Lecturer, Viral Hepatitis Epidemiology and Prevention Program using 'NVivo9' software, using the coding frame constructed during Stage One of the

project

 $\textbf{Status:} \ \mathsf{Data} \ \mathsf{collection} \ \mathsf{complete} \ \mathsf{and}$

analysis underway **Personnel:** Lisa Maher

Collaborators: National Centre for HIV

Social Research. **Funding:** UNSW

Location: Viral Hepatitis Epidemiology and

Prevention Program

An ethno-epidemiological investigation of social and environmental contexts of HIV vulnerability among injection drug users

By combining ethnographic and epidemiological methods this project seeks to develop an ethno-epidemiological model of HIV vulnerability among PWID. Ethnographic methods are used to generate empirical information regarding key transitional events and social contexts within the lives of PWID and how these shape HIV risks. These ethnographic research activities are integrated with a broad program of social epidemiology, including ongoing epidemiological cohort studies. This design permits identification of cohort participants undergoing key transitions for targeted in-depth interviews, as well as examination of hypotheses regarding the relationship between HIV vulnerabilities and particular social contexts (e.g. street-based drug markets and sex work environments). Status: Ongoing

Personnel: Will Small, Lisa Maher Collaborators: Urban Health Research Institute, British Columbia Centre for Excellence in HIV/AIDS.

Funding: Canadian Institutes of Health Research Post Doctoral Fellowship; Michael Smith Foundation for Health Research Post Doctoral Fellowship Location: Viral Hepatitis Epidemiology and Prevention Program

Exploring the natural history of injection drug use: A qualitative study of social and environmental influences in the VIDUS cohort

This study seeks to: (1) examine the influence of social and environmental factors on critical initiation and transitional events among street youth and adults who inject drugs, including transitions in drug use, initiation into drug scenes and sex work; (2) examine the influence of social and physical contexts within 'drug scenes' on HIV risk behaviour; (3) refine and document an evolving ethno-epidemiological approach to investigating the natural history of injection drug use. The study employs observational ethnographic activities, in-

depth interviews, mapping techniques, photography, and epidemiological data. Observational activities will be conducted in settings where illicit drugs are consumed. Qualitative in-depth interviews will be conducted with individuals who are members of existing cohort studies, and will utilise a longitudinal perspective through annual follow-up of participants. Status: Ongoing

Personnel: Will Small, Lisa Maher Collaborators: British Columbia Centre for Excellence in HIV/AIDS, Vancouver (lead). Funding: Canadian Institutes of Health Research

Location: Viral Hepatitis Epidemiology and Prevention Program

Relative efficacy of cash versus vouchers in engaging people who inject drugs (PWID) in research.

Ethical concerns around reimbursing PWID for research participation have focussed on the potential for cash payments to precipitate drug use. In an effort to overcome perceived ethical complexities, some protocols instead reimburse participants with vouchers rather than cash. This study employs a crossover design at two opioid substitution therapy (OST) clinics. At Time 1, researchers located in each clinic will interview OST clients about their alcohol use. Three months later (Time 2), the same protocol will be implemented in the same two clinics. However, at Time 1, Clinic 1 offered \$20 cash as reimbursement while Clinic 2 offered a \$20 voucher. At Time 2, this

will be reversed, with Clinic 1 offering the voucher, and Clinic 2 offering cash. The main outcome of interest in this study is the proportion and characteristics of participants willing to participate for cash versus voucher reimbursement. Status: Round 1 data collection completed in April 2011; round 2 due for completion in November 2011 Personnel: Mofizul Islam, Rachel Deacon, Libby Topp Collaborators: Discipline of Addiction Medicine, University of Sydney. Funding: UNSW Faculty of Medicine **Faculty Research Grant Location**: Viral Hepatitis Epidemiology

Assessment and prevention of injection-related injury and disease (IRID) among people who inject drugs

and Prevention Program

Injecting-related injury and disease (IRID) is a significant health issue among PWID. This study aims to identify prevalence (lifetime and recent) of IRID and associated risk factors among PWID attending the Kirketon Road Centre (KRC) and to develop and evaluate an intervention to prevent and treat IRID in this group. A clinician-administered screening tool was developed and integrated into routine alcohol and other drug assessment for PWID first attending KRC. The intervention consisted of specific safer injecting messages provided by clinicians at the point of venepuncture to screen for blood borne infections. A survey to assess baseline injecting knowledge and practices was conducted

prior to, and following receipts of, the intervention.

Status: Evaluation of the clinical intervention currently in progress Personnel: Mihaela Ivan, Lisa Maher Collaborators: Kirketon Road Centre, South Eastern Sydney Local Health District. Funding: NSW Ministry of Health Mental Health and Drug and Alcohol Office (MHDAO)

Location: Viral Hepatitis Epidemiology and Prevention Program

Evaluation of sexual health services for men who have sex with men in Perth

Review of sexual health services for gay, bisexual and other MSM The Western Australian AIDS Council (WAAC) provides a peer (or community) based sexual health services for gay, bisexual, and other men who have sex with men MSM clients at two sites, This model is a relatively new approach to HIV/STI service delivery among MSM in Western Australia . This study will describe this approach and compare to two other service delivery models (general practice and sexual health clinic). We will describe the clinic (funding, staffing, location), the MSM clients attending (numbers, demographics, testing patterns, reasons for attending) and the clients perceptions of the services. Multiple data collections will take place.

Status: ongoing

Personnel: Damian Conway, Rebecca Guy, Denton Callander

Collaborators: Martin Holt, Lewis Marshall, Trish Langdon, Michael



REBECCA GUY

Improved outcomes in sexual health

In the third year of a four-year NHMRC post-doctoral fellowship, Dr Rebecca Guy's research program into the prevention of sexually transmitted infections (STIs) includes observational studies, systematic reviews, meta-analyses, short-term field trials and two large cluster randomised trials. Her motive: to achieve substantial improvements in sexual health among people at

greatest risk of STIs. "We urgently need improved outcomes in sexual health for priority populations, particularly those who experience sexual health disadvantage – Aboriginal people, young people, and men who have sex with men," Dr Guy said. "We must use a range of strategies, including information technology and new laboratory developments, to ensure better patient outcomes." Dr Guy's research falls into four broad groups. The first is using available clinical data to evaluate sexual health clinical service strategies, through the Australian Collaboration for Chlamydia Enhanced Sentinel Surveillance (ACCESS) network. "ACCESS provided the first reliable means of interpreting trends in chlamydia diagnoses," Dr Guy said. The second research focus is the evaluation of novel strategies to improve access to STI diagnostic testing, long recognised as a key control strategy for curable STIs. A third area of research concerns ways to support changes in improved clinical practice to achieve a reduction in STI prevalence. "One approach is in a

large-scale study with 67 remote communities due

to receive a Sexual Health Quality Improvement Program (SHQIP)," Dr Guy said. "The primary outcome is STI prevalence, measured annually." Other aspects of this work are designed to improve chlamydia testing and management in young people in general practice and to improve STI testing and management in men who have sex with men. Dr Guy's fourth area of interest is to establish a cohort of adolescents to assess the impact of internet exposure to sexual material. "We know that earlier onset of sexual activity increases the chances of adverse health outcomes," Dr Guy said. "There has been a massive increase in new media use among young adolescents. So this year I have started work developing a study in young adolescents, to investigate whether exposure to sexual content in new media leads to earlier sexual activity, risk behaviour and adverse mental health outcomes."

Rebecca Guy BAppSc, MAppEpid, PhD Senior Lecturer and NHMRC Post-doctoral Fellow, Sexual Health Program

Atkinson, Jenny McCloskey, Ric Chaney **Funding:** NHMRC Program grant **Location:** Sexual Health Program

Chlamydia testing and management practices in Australian family planning clinics

Chlamydia is the most common reportable infection in Australia with over 70,000 cases reported in 2010. Chlamydia infection is associated with adverse health outcomes including pelvic inflammatory disease (PID), ectopic pregnancy, and tubal infertility. Chlamydia testing, contact tracing and retesting practices of clinicians are important foundations for early detection and prevention of chlamydia infections. The aims of this study are to assess chlamydia testing, partner notification and retesting practices of clinicians at Family Planning clinics in Australia; to determine enablers and barriers to chlamydia testing, contact tracing and retesting; and to identify opportunities for training and support of clinicians and future interventions for chlamydia prevention. This study will be conducted at Family Planning Clinics in all states and territories of Australia and will involved an online survey of clinicians' chlamydia testing and management practices. Following the survey, focus groups among family planning clinics' clinicians will be conducted to determine enablers and barriers to the testing and management of patients for chlamydia. **Status:** Ethics approved; roll out of survey and focus groups in early 2012.

Personnel: Joanne Micallef, Rebecca Guy Collaborators: Deborah Bateson (Family Planning New South Wales); Caroline Harvey (Family Planning Queensland); Julie Mooney-Somers (University of Sydney); Caroline Van Gemert (Burnet Institute)

Co-location: Sexual Health Program and Public Health Interventions Research Group

COLLABORATIVE PROJECTS WITH SYDNEY SEXUAL HEALTH CENTRE

Do SMS reminders improve retesting rates after chlamydia infection in heterosexuals?

Chlamydia re-infection is common in women and men. By 12 months re-infection rates have been reported to be as high as 22% in a chlamydia re-infection prospective cohort of young women in Australia 2008-2009. In light of the high re-infection rates, clinical guidelines in Australia recommend that any people diagnosed with chlamydia should be re-

tested in three months to detect chlamydia re-infections. Despite this, a recent analysis of heterosexuals attending 19 sexual health clinics found that the proportion of patients with chlamydia infection who were re-tested in 1-4 months was 11.9% in heterosexual males and 17.8% in heterosexual females. In late 2008, Sydney Sexual health Centre implemented a SMS reminder system to improve the frequency of the re-testing within three months of a chlamydia infection. We evaluated the impact of the SMS reminder system on chlamydia re-testing within 3 of initial infection in heterosexuals attending Sydney Sexual Health Clinic. A controlled observational study design was used. Status: Manuscript submitted to the STI journal

journal
Personnel: Rebecca Guy, Handan Wand
Collaborators: Phillip Read, Aurelie
Kenigsberg, Vickie Knight, Anna McNulty
(Sydney Sexual health Centre)
Co-location: Sexual Health Program and
Biostatistics and Databases Program

Do SMS reminders improve STI testing frequency in men who have sex with men (MSM)?

In late 2008, Sydney Sexual health Centre implemented a reminder system to improve re-testing rates for HIV and sexually transmissible infections (STIs) in men who have sex with men (MSM); 3-6 monthly SMS reminders were recommended for high-risk MSM. We evaluated the impact of the SMS reminder system on HIV/STI testing re-testing rates in MSM attending Sydney Sexual Health Clinic. A controlled observational study design was used.

Status: Final manuscript accepted for publication in the STI journal

Personnel: Rebecca Guy, Handan Wand

Collaborations: Chris Bourne, Vickie Knight, Heng Lu, Anna McNulty (Sydney Sexual health Centre)

Funding: Nil

Co-location: Sexual Health Program and Biostatistics and Databases Program

The use of SMS reminders to increase completion of Hepatitis A and B vaccination courses in a Sydney sexual health clinic

Hepatitis B virus (HBV) is a major public health problem worldwide. Prevention is widely acknowledged to be the most effective approach to the problem. A vaccine has been available since 1982, and the standard immunisation schedule consists of three injections, at zero, one and six months. There are also Hepatitis A/B combinations vaccinations which follow the same schedule. Noncompliance with vaccination schedules undermines the potential benefits of immunization. Despite

this, the completion rates among sexual health clinic attendees have been reported to be suboptimal in many clinics. In 2008, Sydney Sexual health Centre implemented a SMS reminder system to improve compliance with HBV vaccine schedule. The purpose of this study was to evaluate whether a reminder of the next vaccine dose sent by (SMS to the vaccinee's mobile phone increases compliance with hepatitis B vaccination schedule. A secondary objective was to identify differences in completion between patient sub-groups eligible for HBV vaccination.

Status: in progress

Personnel: Handan Wand, Rebecca Guy Collaborators: Phillip Read, Vickie Knight, Anna McNulty (Sydney Sexual health Centre)

Funding: Nil

Co-location: Sexual Health Program and Biostatistics and Databases Program

New Xpress STI screening clinic improves patient journey and clinic capacity at a large sexual health clinic

In December 2010 a new 'express' testing service (Xpress) was implemented alongside routine clinics at a large sexual health clinic. Xpress involved a computer assisted self interview (CASI), self-collected samples, and enrolled nurse staffing. The evaluation demonstrated the Xpress clinic improved the patient journey in regards to waiting times and length of stay at the clinic, and even though the Xpress clinics was not fully utilised more patients were seen overall in the clinic with minimal additional costs.

Status: paper drafted

Personnel: Handan Wand, Rebecca Guy Collaborators: Vickie Knight, Heng Lu, Anna McNulty (Sydney Sexual health Centre):

Nathan Ryder, (Sexual Health and Blood Borne Virus Unit, Department of Health and Families, NT)

Funding: Nil

Co-location: Sexual Health Program and Biostatistics and Databases Program

Seasonal trends in STI diagnoses: an investigation

Local, State-wide and national notification data for STIs appears to show consistent variation at specific times during the year. The aim of the study is to identify seasonal trends in STI diagnoses, and to correlate this to trends in sexual behaviour, alcohol and drug use. Data from the Sydney Sexual Health Centre database will be used for this analysis.

Status: Data analysis is ongoing.
Project members: Handan Wand, Basil
Donovan, Rebecca Guy
Collaborators: Phillip Read, Anna

McNulty (Sydney Sexual Health Centre) **Funding:** Nil

Co-location: Sexual Health Program and Biostatistics and Databases Program

Culturally and linguistically diverse MSM at SSHC: diagnostic and behavioural trends

Differences may exist in both STI risk behaviour and testing practice between the major Culturally and Linguistically Diverse groups within Australia. The purpose of this study is to compare practice and trends over time. Data will be analysed by country of birth (Australian born versus overseas born) and Language spoken.

Status: Data analysis is ongoing and we aim to submit an abstract to the Australasian Sexual Health Conference 2011 prior to publication.

Personnel: Rebecca Guy, Handan Wand, Basil Donovan

Collaborators: Chris Bourne (NSW Health); Phillip Read (Sydney Sexual Health Centre)

Funding: Nil

Co-location: Sexual Health Program and Biostatistics and Databases Program

Unprotected oral sex and sex workers at Sydney Sexual Health Centre

Unprotected fellatio at work may represent a risk for STI acquisition in the oropharynx, and subsequent onwards transmission. This study seeks to identify the determinants of unprotected fellatio, and where possible correlate this to the presence of gonorrhea in the oropharynx. Sex workers attending Sydney Sexual Health Centre were asked about their use of condoms for fellatio at work, and swabs were taken for gonorrhea testing.

Status: Results were presented at the ISSTDR conference in July 2011 prior to

publication. **Personnel**: Basil Donovan, Rebecca Guy,
Handan Wand

Collaborators: Phillip Read, Anna McNulty (Sydney Sexual Health Centre) Co-location: Sexual Health Program and Biostatistics and Databases Program

CLINICAL EPIDEMIOLOGY

HIM (Health in Men) study: Chlamydia serovars in Australian homosexual men

A study to examine the prevalence and incidence of different Chlamydia serovars. **Status:** Analysis and final reporting occurred in 2011

Personnel: David Templeton, Andrew Grulich, Garrett Prestage, Jeff Jin. Collaborators: Royal Women's Hospital,

Melbourne.

Fellowship

Funding: NIH, NHMRC, DoHA, NSW Health **Location:** *HIV Epidemiology and Prevention Program*

Examination of injecting drug use life course and estimating prevalence and health consequences of a dynamic population

This project examines longitudinal datasets of injecting drug users from the UK (e. g. Edinburgh Addiction Cohort Study) and Australia (e. g. Hepatitis Incidence and Transmission Study) taking into account periods of injecting and noninjecting. This will allow for more valid projections of injecting drug use health consequences and associated health impacts and costs of interventions.

Status: Completed June 2011

Personnel: Jo Kimber, Lisa Maher
Collaborators: University of Bristol; MRC
Biostatistics Unit, Cambridge; Muirhouse
Medical Group, Edinburgh; London School
of Hygiene and Tropical Medicine.
Funding: NHMRC (Sidney Sax) Training

Location: Viral Hepatitis Epidemiology and Prevention Program

INFECTION-RELATED CANCER

The SPANC study (Study of the prevention of anal cancer)

A cohort study to examine the prevalence, incidence and risk factors for progression of human papillomavirus infection and anal cancer precursors in HIV positive and HIV negative homosexual men aged 35 and older.

Status: By the end of 2011, 190 participants were recruited. Initial analyses were reported on safety and adverse effects of anal cancer screening were presented.

Personnel: Andrew Grulich, Jeff Jin, David Templeton, Garrett Prestage Collaborators: St Vincent's Hospital; Sexually Transmitted Infections Research Centre, Westmead Hospital; Melbourne Sexual Health Centre; Royal Women's Hospital, Melbourne; Douglass Hanly Moir Pathology; School of Public Health, University of Sydney

Funding: NHMRC Program Grant **Location**: *HIV Epidemiology and Prevention Program*

Geographic variation in anal cancer incidence in New South Wales

A review of NSW data on cancer incidence in those postcodes with a high proportion of homosexually active men.

Status: Analyses of cancer incidence by postcode occurred.

Personnel: Andrew Grulich, Mary Poynten, Jeff Jin

Collaborators: NSW Cancer Registry **Funding:** NHMRC Fellowship

Location: HIV Epidemiology and Prevention Program

International pooled analysis of immune risk factors for lymphoma

A pooled analysis of case-control studies of immune risk factors for lymphoma. All twelve member studies sent data on a pooled total of 12,982 cases and 16,441 controls, and results on auto-immune disease as a risk factor for non-Hodgkin lymphoma (NHL) were reported.

Status: Analyses on infectious conditions and NHL risk were reported.

Personnel: Andrew Grulich Collaborators: UNSW Cancer

Research Centre; University of Southern California; German Cancer Research Centre; Feinberg School of Medicine, Northwest University; Centre for Study and Prevention of Cancer; Aviano Cancer Centre; Catalan Institute of Oncology; University of California, San Francisco; David Geffen School of Medicine, University of California, Los Angeles; University of York; British Columbia Cancer Registry; School of Medicine, Yale University

Funding: Leukaemia Foundation of Australia

Location: HIV Epidemiology and Prevention Program

Serological studies of HPV in gay Australian men

A sero-epidemiological study of the prevalence, incidence and predictors of infection with a number of different HPV types.

Status: In 2011, over 5000 serological samples from the Health in Men study were analysed for antibodies to 10 HPV types at the German Cancer Research Centre (DKFZ) in Heidelberg, Germany. Analyses of the data were completed. One paper has been submitted and another is being drafted.

Personnel: Mary Poynten, Andrew Grulich, Jeff Jin, Dave Templeton, Garrett Prestage, Tim Waterboer, Michael Pawlita, Christopher Fairley, Basil Donovan, Suzanne Garland

Collaborators: German Cancer Research Centre (DKFZ), Heidelberg, Germany Funding: STI Program Grant, NHMRC Post-doctoral Training Scholarship (M. Poynten)

Location: HIV Epidemiology and Prevention Program

Laboratory surveillance of incident HIV infection

Laboratory markers are used to determine incident from established HIV infection to monitor the trends in newly acquired infections, providing an important sentinel surveillance tool. BED ELISAs, and analysis of other routine laboratory markers used in the diagnosis of HIV infection, are used in monitoring new infections.

Status: All newly identified cases of HIV infection at the NSW State Reference Laboratory for HIV at St Vincent's Hospital were analysed on BED assays. During 2011, protocols were further developed towards a goal of deriving viral sequence fro RT protease and integrase genes from dried blood spots. This would allow sophisticated molecular epidemiology to be preformed even in resource-poor settings.

Personnel: Anthony Kelleher Collaborators: Philip Cunningham, St Vincent's Hospital, Sydney; Sara Evans, Celine Yang, Kazuo Suzuki, Jane Cornwall Funding: NSW Health Department **Location:** *Immunovirology and* Pathogenesis Program

INSIGHT NWCS for FIRST (CPCRA 058) banked plasma samples

The effects of Protease Inhibitor and Non-Nucleoside Reverse Transcriptase Inhibitor – based Highly Active Antiretroviral Therapy (HAART) on Biomarkers of Inflammation and Microbial Translocation in HAART naïve, HIV-infected subjects in CPCRA study 058 (FIRST)

Status: ongoing Personnel: Handan Wand Collaborator: Daniel Nixon

Funding: INSIGHT trial network. Location: Biostatistics and Databases Program

IMMUNOPATHOGENESIS AND CORRELATES OF IMMUNITY RESEARCH

Primary HIV and early disease research Australian cohort (PHAEDRA) Extension A systematic mechanism to follow up the PHAEDRA and Core01 cohorts in Sydney and Melbourne with acute and early HIV-1

Status: 137 patients were enrolled in this extension study by December 2011 and follow up is continuing.

Personnel: Pat Grey, Ansari Shaik, David Cooper, Anthony Kelleher.

Collaborators: Robert Finlayson, Mark Bloch, Cassy Workman, Robert McFarlane, Dr B.K. Tee, Norman Roth, Phillip Cunningham, John Zaunders, Tim Read. John Murray, School of Mathematics Funding: NHMRC Program Grant

Location: Immunovirology and Pathogenesis Program

Australian Long-Term Non-progressor

The Australian long-term non-progressor cohort study was established in 1994 and is ongoing. Studies focussing on identifying the reason this rare group of people with prolonged HIV infection remain healthy, with virtually no damage to their immune system, are extremely important for understanding the pathogenesis of HIV and for developing new antiretroviral therapy and preventative vaccines.

Status: Of the 163 participants recruited to this cohort 42 individuals (sustained non-progressors) are still treatment-naïve. Four new patients were recruited in 2011. Personnel: *Linda Gelgor, Anthony Kelleher, Pat Grey, Ansari Shaik, John Kaldor, David Cooper (*deceased in 2011) Collaborators: Long-Term Non-progressor Study Group, including clinical sites in Sydney, Port Kembla, Canberra, Brisbane and Melbourne; Kat Marks, St Vincent's Hospital, Sydney; Stephen Kent and Ivan Stratov, University of Melbourne. International collaboration includes Elite Controller Collaborative Project and the International AIDS Vaccine Initiative

(IAVI). Funding: NHMRC Location: Immunovirology and

Pathogenesis Program

Collaborators: Kate Merlin, Julie Yeung, Maria Piperias, Bertha Fsadni (St Vincent's Hospital, Sydney) **Funding**: Project-specific grants Co-located: Viral Hepatitis Clinical

and Pathogenesis Program

RESTORE

An observational study to explore reconstitution of immunity in patients with advanced HIV-1-infection commencing combination antiretroviral therapy Target: 50 patients recruited and in follow-

Sites: one site in Thailand

Personnel: Denise Hsu, Sarah Pett, Sean Emery, Anthony Kelleher, Collaborators: Jintanat Ananworanich.

Sasiwimol Ubolvam, Anchalee Avihingsanon, Kiat Ruxrungtham, Praphan Phanuphak, HIV-NAT Bangkok

Funding: NHMRC, UNSW **Location:** Therapeutic and Vaccine Research Program

LABORATORY SERVICE AND **SUPPORT**

Specimen receipt and processing for clinical trials and natural history studies

The laboratory provides a service to other Kirby Institute programs encompassing the separation of blood components including but not limited to; cryopreservation of serum, plasma and PBMC, archiving and on shipping of samples. The service also includes database management of the storage of these samples. Staff also have experience with the implementation of assays which are not offered by local diagnostic laboratories. This service contributes to the overall smooth running of clinical trials and natural history studies.

Status: Ongoing

Personnel: Anthony Kelleher Research Program and Immunovirology HepBank Clinical Sample Repository & Open Access Substudu database (LabKey)

Establishment of a HCV sample repository that incorporates barcoding to facilitate patient sample and data management. This includes samples from ATAHC and CHARIOT and prospective trials including Sample collection for Prospective cohorts and trials including ATAHC I recall / SEARCH-C / ACTIVATE / ATAHC II / DARE-C / ETHOS. The web-based LabKey database will link existing clinical, sample repository and laboratory data-sets to allow comprehensive analysis of clinical trial results.

Status: ongoing

Personnel: Sofia Bartlett, Ineke Shaw, Pip Marks, Trent Schafer, Brendan Jacka, Tanya Applegate, Ansari Shaik, Tony Kelleher Funding: NHMRC Program Grant + UNSW Major Equipment Research funding Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

ASSAY DEVELOPMENT

Assays of T-cell function, proliferation and cytotoxicity, and identification of antigen-specific T-cells

A range of flow cytometric assays for assessing CD4+ and CD8+ T-cell function are worked up in the laboratory. The measures of antigen-specific T-cells include T cell proliferation, activation and cytokine secretion. Such assays are important for understanding HIV pathogenesis and in responses to vaccines, and therefore are included in the protocols of clinical trials

PrIRIS studies in Bangkok and Sydney respectively. Other studies were conducted as part of the PHIIDO observational study of primary HIV infection. These assays were validated in the context two clinical competed clinical studies assessing latent TB infection in Bangkok and Sydney; in a clinical study of CMV re-activation and Adenovirus infection following paediatric bone marrow transplantation, and in following immune responses with gluten induced flares of Coeliac disease. Assays were also conducted to elucidate the generation of CD4+ t cell responses during primary vaccinia vaccination. **Status**: Continued analysis of samples from PHAEDRA and the long-term nonprogressor cohorts, TB studies completed, Studies of CMV disease to be completed in 2011 and coeliac study commenced. Personnel: Susanna Ip, Laura Cook, Mee-Ling Munier, Michelle Bailey, Yin Xu, Chansavath Phetsouphanh, Celine Yan, Anthony Kelleher, Denise Hsu Collaborators: John Zaunders. Mahila Namasivayam, Tony Walls, John Ziegler, Nabila Seddiki, Stephen Kent, Bob Anderson, Jason Tye-Din, Jintanat Ananworanich, Sasiwimol Ubolyam, Anchalee Avihingsanon, Kiat Ruxrungtham, Praphan Phanuphak Funding: NHMRC, St Vincent's Hospital, Coeliac Foundation Co-located: Viral Hepatitis Clinical Research Program and Immunovirology and

and natural history studies carried out by

the Kirby. Assays were performed as part

the PINT trial of therapy with the integrase

inhibitor, Raltegravir and the Restore and

Development of research tools to assess host and viral genetic variations

Pathogenesis Program

To develop affordable assays to support host genetic and viral phylogenetic studies. Status: ongoing

Personnel: Francois Lamoury, Brendan Jacka, Sofia Bartlett, Tanya Applegate Collaborators: Philip Cunningham, Alex

Funding: NHMRC Program Grant Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

DEVELOPMENT OF NEW THERAPEUTIC MODALITIES

HIV drug resistance and viral tropism

This project involves the development of expertise in the application of a number of methods of detecting antiretroviral drug resistance through genotypic testing of HIV isolates. We have three major projects: evaluation and conducting commercially available genotype testing for protease, reverse transcriptase regions; development of a new, cheap in-house genotyping method from blood dry-spots as a starting material,; and developing assays for the determination of CCR5 tropism of patient's HIV isolates. More than 700 HIV-1 resistance genotypes have been performed based on the commercial based resistant assays. Validation of new in-house genotyping method is close to is close to completion.. The CCR5 tropism assay for RNA has been transferred to the NSW State reference laboratory at St Vincent's and is being used for routine care. The validation of the DNA version of this assay is complete and will be used info routine patient care form January 2012.



ANSARI SHAIK Designer of the (CLINLAB) HIVIRL database

Ansari Shaik joined the Kirby Institute in 2003 as a data administrator. But five years ago, when Immunovirology and Pathogenesis Program (IVPP) program head Tony Kelleher heard that Ansari was an Oracle programmer, he jumped at the chance of creating dynamic new databases

to allow much greater flexibility, efficiency and accuracy in tracking patient profiles and samples. IVPP holds a huge repository of samples, the majority from patients with HIV infection, and all data used to be entered in thirty or forty Excel spread sheets. Using Oracle, Ansari has created databases for 70 studies, including two enormously important groups of patients and samples: the 100-odd Long Term Non Progressors group, whose HIV disease does not progress, and the primary infection group of 341 patients, whose samples were taken at a very early stage of infection. These cohorts are important for understanding the factors underlying different rates of disease progression. The database now tracks more than 180,000 vials containing samples taken from almost 28,000 patient visits. "Ansari's new databases would allow us, for example, to do a new study on primary infection patients with a particular set of criteria which we can search the database to find,"

Professor Kelleher said, "and we will also know immediately what samples we have for those patients. This allows us to efficiently facilitate collaborations nationally and internationally in a way that we couldn't do before." The interlocking databases have expanded to allow not only dynamic and flexible data storage but also real-time entry from external sites in Australia and overseas, which reduces transcription time and errors. "This is invisible but crucial support for what we do," Professor Kelleher said. "And Ansari wrote it all." Ansari believes that few other Australian laboratories have achieved this level of data management. "When they hear about ours, they are asking about it," he said. "I am very satisfied with what we have done, but there is still more to do."

Ansari Shaik BA, MBA Data Administrator Immunovirology and Pathogenesis Program

Status: Validation of assays nearing completion Personnel: Anthony Kelleher, Celine Yan,

Kerstin Koelsch, Yong Pan Collaborators: Kazuo Suzuki, Kat Marks,

Nick Rismanto Philip Cunningham, Leon McNally, Alexander Carrera

Funding: NSW Health Department, ViiV Co-located: Viral Hepatitis Clinical Research Program and Immunovirology and Pathogenesis Program

RNA inducing viral latency

This project is related to siRNA gene silencing for HIV-1 and SIV infection. siRNAs targeting viral promoter DNA region induce transcriptional gene silencing (TGS) of viral genes in infected cells. The study has been extended to two major objectives: delivery system of siRNA and mechanism of gene silencing. To develop and evaluate delivery systems including lentiviral and non-viral systems for use in a humanised mouse HIV-1 infection model; and to define the pathways by which dsRNAs targeting the promoter regions of HIV-1 and SIV. Silencing constructs applicable for use in HIV-1 infection have been development. These constructs have been incorporated into a lentiviral delivery system, which will be assessed *in vitro*. Epigenetic changes induced by siRNAs targeting HIV-LTR will also be defined. We also investigated the subcellular localisation of Argonaute proteins (Ago) during the TGS process and recently reported the presence of Ago1 in the nucleus and Ago2 in the nuclear membrane as demonstrated by confocal microscope using tagged Ago1/ Ago2 and fluorescently labelled siRNA. We also demonstrated colocalisation between Ago1 or Ago2 and F-actin and are currently following up of this novel finding to potentially link transport of the molecules from the cytoplasm into the nucleus where they would then act on the HIV-1 promoter to initiate gene silencing. Status: Ongoing

Personnel: Anthony Kelleher, Chantelle Hood, Sanjay Swaminathan

Collaborators: Kazuo Suzuki, Takaomi Ishida, Makoto Ymamagisi, Toshiki Watanebe

Funding: NHMRC

Co-located: Viral Hepatitis Clinical Research Program and Immunovirology and Pathogenesis Program

TRANSLATIONAL RESEARCH:

In-vivo hepatitis C virus adaptation to host in recently acquired HCV (ATAHC)



CHANTELLE AHLENSTIEL

Toward eradication

Chantelle Ahlenstiel, who joined the Kirby Institute in 2009, is working on an area of HIV pathogenesis, which has the potential to provide insight into eradicating the virus from the body's latent reservoirs – a crucial step on the pathway toward a novel and exciting potential new gene therapy for HIV-1 treatment.

Dr Ahlenstiel's research builds on previous work by colleague Dr Kazuo Suzuki on siRNA, a very small piece of nucleic acid, which binds to a region of the HIV promoter driving HIV replication. The binding process interrupts the replication and effectively silences the virus. She has used one particular target region to map out the process of transcriptional gene silencing and the mechanisms which it uses: DNA and histone methylation and histone deacetylation. Her research has taken a two-pronged approach: one is characterising and developing new siRNA targets, which she will then combine to see if they have a synergistic silencing effect. The second approach is to look at the siRNA interaction with other proteins during the binding phase.

"I am looking at protein-protein interactions with mass spectrometry to identify all the proteins present," Dr Ahlenstiel said. "Preliminary results have given us some exciting lead candidates, proteins which are all involved in the pathways known to work during gene silencing." This builds on her results from fluorescent microscopy studies, recently published in the journal Nucleic Acids Research, which showed co-localisation between siRNA and proteins involved in gene silencing.

Dr Suzuki has already achieved exciting preliminary data indicating that the gene silencing process effectively silences HIV in mice. When Dr Ahlenstiel and colleagues have identified which of the siRNA sections work best in mice, "the ultimate step will be to use it in human studies," she said.

Chantelle Ahlenstiel PhD Research Assistant, Immunovirology and Pathogenesis Program

To characterise HCV adaptation to HLArestricted immune response and examine the influence of HLA alleles on HCV sequence evolution and escape mutations. Status: Ongoing

Personnel: Greg Dore, Gail Matthews Collaborators: Simon Malal and Silvana Gaudieri (CCiBS, Perth) and Andrew Llovd (UNSW)

Funding: National Institute of Health Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

IP10, IL28B serum protein levels and T-cell responses in recently acquired HCV (ATAHC)

Analysing serum IP-10 and IL28B protein levels (by ELISA) as a marker of spontaneous and treatment-induced clearance during early HCV infection. Status: Ongoing

Personnel: Jason Grebely, Tanya Applegate, Greg Dore, Gail Matthews Collaborators: Jordan Feld (Toronto University, Canada), Andrew Lloyd (UNSW), Jacqueline Flynn and Rosemary Ffrench (Burnet Institute, Victoria) Funding: National Institute of Health, NHMRC Program Grant Co-located: Viral Hepatitis Clinical

Research Program (laboratory program) and Immunovirology and Pathogenesis

Investigation of the association between ITPA polymorphism, ontreatment anemia and treatment outcome in the CHARIOT cohort

This study is designed to evaluate the association between the ITPA polymorphisms rs1127354 and rs7270101, and on-treatment anaemia, RBV dose reduction and rate of SVR in the CHARIOT cohort.

Status: Ongoing

Personnel: Greg Dore, Gail Matthews, Pip Marks, Sofia Bartlett.

Collaborators: Alex Thompson (St

Vincent's Hospital, Melbourne) and CHARIOT PSC.

Funding: St Vincent's Hospital Sydney, Roche Products Pty Ltd

Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis

Program

A study of the relationship between vitamin status and the severity of liver disease and outcomes of the treatment with Pegulated interferon alfal 2A plus Ribavirin in Hepatitis C Genotype 1 infected patients

This study is designed to evaluate serum vitamin d levels and the relationship between vitamin d and histologic disease severity in hcv genotype 1 patients with biopsy proven CHC from the CHARIOT study.

Status: Ongoing

Personnel: Greg Dore, Pip Marks, Sofia Bartlett.

Collaborators: Stuart Roberts,

Matthew Kitson.

Funding: The Alfred Hospital, Melbourne, Roche Products Pty Ltd Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

Role of host genetics in chronic HCV combination treatment response

To identify a combination of baseline covariates, serum protein markers and host genetic markers to develop a treatment algorithm to predict the response rate of each patient considering treatment for CHC.

Status: Ongoing

Personnel: Greg Dore, Pip Marks, Sofia Bartlett, Tanya Applegate.

Collaborators: Jacob George, Stuart Roberts.

Funding: Roche Products Pty Ltd Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

TRANSLATIONAL RESEARCH:

RADAR - Resistance Against Directly Acting Antivirals in Australian Trial in Acute Hepatitis C, (ATAHC)

Identification of the prevalence of preexisting resistance mutations within the ATAHC cohort in treatment naïve patients, to Polymerase and Protease Inhibitors using Deep Sequencing analysis.

Status: Ongoing

Personnel: Gail Matthews, Tanya Applegate, Greg Dore

Collaborators: Silvana Gaudieri Funding: NHMRC Project Grant, NHMRC Program grant

Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

Characterisation of reinfection/mixed **HCV** infection in recently acquired **HCV** (ATAHC)

Analysis of the prevalence and impact of HCV reinfection and mixed infection using novel real time PCR (MNAzyme) technology, direct sequencing and genotype specific PCR.

Status: Ongoing

Personnel: Brendan Jacka, Tanya Applegate, Jason Grebely, Greg Dore, Gail Matthews

Collaborators: Sean Pham & Peter White (UNSW, Sydney), Alison Todd & Elisa

Mokany (SpeeDx Pty Ltd, Sydney). Funding: National Institute of Health, NHMRC Program Grant, Australian Postgraduate Award

Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

TRANSMISSION RESEARCH

ITHACA: Investigating Transmission Dynamics of HCV Among injecting drug users in Canada and Australia

Status: The goal of this project is to evaluate HCV transmission dynamics among injecting drug users (IDUs). First, we are interested in how HCV is transmitted from older to younger IDUs and whether public health initiatives have led to a reduction in transmission. Second, we are interested in understanding how frequently reinfection and mixed infections with HCV occur and what characteristics are associated with reinfection/mixed infections. We plan to conduct this study within well-established cohorts of IDUs in Vancouver, the Vancouver Injecting Drug Users Study (VIDUS) and the At-risk Youth Study (ARYS). Ethics approval is expected from the UBC Providence Health Care Ethics Committee in Canada during 2012. Ethics is currently being sought for work to be done in Australia.

Status: Ongoing



ANU AGGARWAL AND TINA IEMMA

Improving sexual health management in Aboriginal health services

Professor Stuart Turville is the Senior Research Fellow who brought his HIV Biology Research Group to join the Kirby's Immunovirology and Pathogenesis Program in March 2011. The focus of the group is to improve understanding of HIV transmission between cell types through the use of advanced live cell microscopic imaging techniques. An important piece of technology for this process is a fluorescent microscope capable of live cell, multiple colour,

real-time analysis, located in PC3 lab for Professor Turville's work. This allows real-time analysis of the kinetics of virus cell interactions, along with his unique fluorescent viral constructs. Dr Anupriya Aggarwal and Tina lemma are members of Professor Turville's team. Dr Aggarwal looks at the spread of HIV within the cells of the human immune system. "Our main interest has been the observations of dendritic cells, or DCs, since this cell type is one of the first that the virus encounters in genital mucosa," she said, "DCs also have the unique ability to disseminate virus very efficiently to CD4+ cells. Through dynamic imaging of infected DCs, we have characterised finger-like projections, called 'HIV filopodia'. "The virus localises at the tips of these long projections by hijacking the normal cellular machinery. We are currently trying to understand the mechanisms underlying the formation of these structures and the ways in which the virus manipulates them for its own ends." Tina lemma worked with Dr Aggarwal on this project when she joined the team as a Research

Assistant. She was also working on a project which

has now become her PhD study. Tina is looking

at the role of a particular protein in the chain of events which is HIV infection. "We are targeting a protein, called dynamin-II, with new drugs, because we hope that by attacking dynamin-II we may be able to reduce the potential for infection." The dynamin-II protein plays many roles in the human body, including regulating communication between nerve cells, but more recently it was discovered that dynamin-II is also involved in HIV infection. In collaboration with the University of Sydney and University of Newcastle, Professor Turville and Tina are testing newly developed drugs against dynamin-II for their ability to reduce HIV infection. In addition to this, Tina uses fluorescent microscopy to track live HIV particles as they infect cells.

Dr Anupriya Aggarwal PhD, Research Assistant Tina Iemma BSc (Adv) (Hons) PhD candidate, Thesis title: The Role of Dynamin-II in HIV Pathogenesis Supervisors: Stuart Turville; Phillip Robinson (University of Sydney) HIV Biology Group, Immunovirology and Pathogenesis Program

Personnel: Jason Grebely, Tanya Applegate, Brendan Jacka, Greg Dore, Francois Lamoury, Gail Matthews Collaborators: Mel Krajden (British Columbia Centre for Disease Control), Evan Wood, Thomas Kerr, Richard Harrigan, Art Poon (British Columbia Centre for Excellence in HIV and AIDS), Zabrina Brumme (Simon Fraser University), Jesse Raffa (University of Waterloo), Brandon Marshall (Brown University), Silvana Gaudieri (University of Western Australia)

Funding: The Canadian Institutes for Health Research

Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

Transmission networks in recentlu acquired HCV in ATAHC

Explore clinical and molecular epidemiology of HCV transmission networks in HIV+/- population and assess if networks bridging into HIVcommunities through phylogenetic and molecular clock analysis of HCV sequences.

Status: Ongoing Personnel: Gail Matthews, Tanya

Applegate, Greg Dore, Jason Grebely Collaborators: Sean Pham, Fabio Luciani, Peter White, Lei Zhang

Funding: National Institute of Health,

NHMRC Program Grant **Co-located**: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

THERAPEUTIC RESEARCH

Ribavirin concentrations in subjects with chronic HCV (CHARIOT)

Determinants of plasma ribavirin concentration during the first 12 weeks of therapy in CHC genotype 1 patients treated within the CHARIOT study. Status: Ongoing

Personnel: Gail Matthews, Ineke Shaw, Rachel Ali, Greg Dore

Collaborators: John Ray (St Vincent's Hospital)

Funding: St Vincent's Hospital Sydney, Roche Products Pty Ltd

Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis Program

Dynamic trafficking of HIV spread

HIV as a cell free viral entity is vulnerable to many attacks by the innate and acquired immune system. To get around these often hostile conditions, HIV predominately

spreads from one cell to the next when they are intimately contacting each other in a structure refer to as a synapse. Whilst the main objective for virus to move across a synapse is evasion, it may also be seen as a form of synchronised infection. For instance, once an infected cell makes contact with a future HIV target, the virus actively promotes release of many virions towards this neighbouring target. This effectively overwhelms the new cell with virus, making it difficult for natural defences and also antiretroviral drugs to stop and/or control. This project represents a study only currently capable in a few laboratories worldwide, as it has taken years to develop appropriate HIV constructs that could be used to visualise in primary infected cells. The major aim of this project is to track live infectious HIV moving from cell to cell and delineate key cellular pathways the virus corrupts in this process. **Status:** For the first time, we have identified HIV using long acting-based structures to co-ordinate spread to new targets. The virus does so by embedding in the tips of long finger-like projections called filopodia. In doing so, the virus has highjacked a probing structure that is otherwise used by cells of the immune system to initiate communication of the immune response.

Personnel: Stuart Turville, Anupriya Aggarwal, Tina Iemma, Ivy Shih Collaborators: Thomas Hope, Timothy

Funding: NHMRC Project Grant 570917 and NHMRC CDA 632962

Location: Immunovirology and Pathogenesis Program

Novel inhibitors of HIV entru

The site where HIV fuses to the cellular membrane has remained one of the most controversial areas in HIV biology. As HIV can fuse with cellular membranes in a pH independent manner, it is already assumed that the virus can directly fuse with the plasma membrane. However recent studies knocking down both Dynamin and Clathrin proteins, has highlighted HIV may favour entry via endosomal membranes. Through a collaborative venture with Professor Philip Robinson at the Children's Medical Research Institute, we are currently testing a portfolio of Dynamin and Clathrin specific set of compounds and their impact on HIV

Status: We have developed an imaging platform of uniquely labelled virions, to map the entry, fusion and uncoating of the virus under normal conditions and in the presence of inhibitors. In conjunction with high throughput assays, we have identified a novel block to HIV entry using Dynamin and Clathrin specific compounds, but not at the level of viral fusion as expected.

Rather, the block is at the time of reverse transcription, with little to no block at the time of entry/fusion.

Personnel: Stuart Turville, Tina Iemma,

Anupriya Aggarwal

Collaborators: Philip Robinson Funding: Australian Centre for HIV and Hepatitis Virology Research (ACH2) Location: Immunovirology and

Pathogenesis Program

Lentiviral vectors and gene therapy

The quest for a HIV cure is top on the list of objectives worldwide in the fight against this disease and therapy by lentiviral vectors is one means to attack the virus potentially at multiple levels. One of the key limitations to the use of gene therapy is the natural resistance of immune cells to this procedure. Thus understanding why cells of the immune system are resistant to gene therapy, will help in increasing the efficacy of this type of treatment. **Status:** Using lentiviral vectors that can package the related monkey virus protein VPX, we and others have been able to introduce genes into highly resistant cells (macrophages and dendritic cells) at efficiencies of greater than 60%. Presently, we are targeting resting primary CD4 T cells, with the aim of raising gene transduction to similar levels. In doing so we wish later to create cells of the immune system that are resistant to future HIV infection.

Personnel: Stuart Turville, Sam McAllery, Anupriya Aggarwal, Tina Iemma Collaborators: Nathaniel R. Landau Funding: NHMRC

Location: *Immunovirology and* Pathogenesis Program

CO-INFECTION

RAMPT-C cohort

Defining risk and mechanisms of permucosal transmission for acute HCV infection MSM and IDUs within highrisk populations. This includes analysis of transmission events through HCV sequencing, biological and behavioural mechanisms in incident cases. Personnel: Gail Matthews, Barbara Yeung, Amanda Erratt, Tanya Applegate, Brendan Jacka, Greg Dore. Collaborators: Mark Danta, Margaret Hellard, Rose Ffrench, Kylie Goy Funding: NHMRC Project Grant Co-located: Viral Hepatitis Clinical Research Program (laboratory program) and Immunovirology and Pathogenesis

Australian Chlamydia control

effectiveness pilot (ACCEPt) study Current national guidelines for general practitioners (GPs) recommend all sexually active people aged 15-29 years old receive annual testing for chlamydia. More than 80% of 15-29 year olds attend a GP each year; however, fewer than 10% are tested for chlamydia by their GP. ACCEPt involves a multifaceted intervention in the GP setting to maximise testing rates and annual testing in sexually active 16 29 year olds in an attempt to reduce the prevalence of chlamydia infections and associated complications such as PID. GP clinics and Aboriginal Community Controlled Health Services in about 50 towns or regions throughout Victoria, NSW and Queensland have been invited to take part. This is the first trial of this nature in Australia and is being led by the Centre for Women's Health, Gender and Society, The University of Melbourne, in collaboration with a large consortium of experts including a number of researchers from the Kirby Institute. The primary aims of this project are to assess the feasibility, acceptability and cost-effectives of an organised program for chlamydia testing in general practice. The secondary aim this project is to increase testing and awareness of chlamydia in the Australian population. **Status:** Site recruitment in Victoria, NSW, and southern Queensland ongoing.

James Ward **Collaborators:** Jane Hocking, Meredith Temple-Smith, Jenny Walker, Simone Poznanski, Alaina Vaisey, Dyani Lewis, Jane Gunn, Christopher Fairley, Nicola Low, Marian Pitts, Marion Saville, Dorota Gertig, Sepehr Tabrizi, Margaret Hellard Funding: Australian Government Department of Health and Ageing Chlamydia Pilot Program **Co-located**: Sexual Health Program, Aboriginal and Torres Strait Islander Health

Program, Surveillance and Evaluation

Program for Public Health, Public Health

Personnel: John Kaldor, Basil Donovan,

David Regan, David Wilson, Matthew Law,

Rebecca Guy, Rebecca Lorch, Lisa Edward,

Interventions Research Group, Biostatistics and Databases Program

STRIVE This study is a cluster randomised trial with an intervention of a sexual health quality improvement program (SHOIP) aimed at reaching best-practice targets in STI control. It is located in 67 remote communities, comprised of 23 clusters of communities, in the Northern Territory, Western Australia and Far North Queensland. Baseline prevalence data for chlamydia, gonorrhoea and trichomonas has been completed from 64 of 67 health services that are participating in the trial and prevalence assessment reports fed back to health services. STRIVE coordinators have completed the baseline systems assessment for health services, randomised to year one of the SHQIP and sexual health action plans with goals set to improve sexual health service delivery, have been implemented. Coordinators have conducted a three-month assessment of all randomised health services and are currently completing a six-month site visit with reports, based on lab data, on STI testing activity.

Status: Randomisation of Year 2 health services has been completed and services will be informed in February 2012. Personnel: John Kaldor, James Ward, Alice Rumbold, Rebecca Guy, Robyn McDermott, Lisa Maher, Basil Donovan, Linda Garton, Christopher Fairley, Bronwyn Silver, Janet Knox, Belinda Hengel, David Glance, Skye McGregor, Donna Ah Chee, John Boffa, Steven Skov, Debbie Taylor-Thomson Funding: NHMRC Project Grant **Location:** Aboriginal and Torres Strait Islander Health Program

REACCH: Research Excellence in Aboriginal Community Controlled Health REACCH brings together the leading

Australian institution dedicated to clinical research on sexually transmitted and blood

borne viral infections (the Kirby Institute), and the peak organisation for Aboriginal Community Controlled Health Services (NACCHO). Together, the Kirby Institute and NACCHO will develop and implement a clinical research program through five selected ACCHS in urban and regional areas that with an aim of improving clinical practice and program delivery in this

Status: Research being undertaken in each of the partner organisation sites Personnel: John Kaldor, James Ward, Dea Delaney Thiele, Sophie Couzos, David Scrimgeour, Jenny Hunt, Greg Dore, Basil Donovan, Mary Ellen Harrod, Maurice Shipp

Funding: NHMRC Centre for Clinical Research Excellence (CCRE) **Location:** Aboriginal and Torres Strait Islander Health Program

GOANNA

The first Australian study assessing knowledge, risk behaviours and health service access in relation to sexually transmissible infections and blood borne viruses of young Indigenous people. This project will conduct the first-ever Australian study describing levels of knowledge, risk practice and access to health services in relation to sexually transmissible infections (STIs) and blood borne viruses (BBVs) of young Aboriginal and Torres Strait Islander people aged 16 to 30 years.

Status: Currently underway; sixteen of 40 survey collections sites completed Personnel: James Ward, Heather Worth, Donna Ah Chee, John Kaldor, Smith A, Marion Pitts, Joanne Bryant, Clint Arizmendi

Funding: Australian Research Council (ARC) Linkage Grant Location: Aboriginal and Torres Strait

Islander Health Program

HIV Modelling Grant

Modelling the interaction between

sexually transmitted infections and HIV transmission to inform public health policy. This project will conduct quantitative analyses using epidemiology, mathematical modelling, and health economics to investigate the impact of sexually transmitted infections (STIs), and where applicable injecting drug use, on population level transmission of HIV. **Status:** Literature review complete; models under development Personnel: David Wilson, Richard Gray, James Ward, Jonathon Anderson, Rob Carter Funding: NHMRC Project Grant **Location:** Aboriginal and Torres Strait Islander Health Program

STI Modelling Grant

This grant will use mathematical models to assess the impact of interventions to reduce sexually transmitted infections in Australia. The aims of this project will be to develop dynamic mathematical models to describe the transmission of chlamydia, gonorrhoea and syphilis in Australian populations and to further our understanding of their epidemiology. These will be used to assess the impact of interventions and the cost effectiveness on the incidence and prevalence of chlamydia, gonorrhoea and syphilis in Australian populations.

Status: Several models completed, analysis and interpretation underway Personnel: Jane Hocking, David Regan, David Wilson, David Philp, Anthony Smith, Andrew Grulich, James Ward Funding: NHMRC Project Grants Location: Aboriginal and Torres Strait Islander Health Program

SHIMMER: NSW Aboriginal Health Research Program

This project is trialing a sexual health and quality improvement program designed to improve STI/BBV testing and management at four Aboriginal Community Controlled Health Services in NSW. The project aims to increase STI/BBV testing, re-testing and follow up. Another aim is to improve the clinical management and ongoing monitoring of patients diagnosed with chronic hepatitis B and patients diagnosed with hepatitis C.

Status: Implementation of the sexual health program

Personnel: James Ward, Basil Donovan, Rebecca Guy, Simon Graham, Janet Knox, Handan Wand, John Kaldor

Funding: NSW Health Location: Aboriginal and Torres Strait

Islander Health Program

Increasing completeness of 'Aboriginality' in infectious diseases data through record linkage – a



SIMON GRAHAM

Improving sexual health management in Aboriginal health services

Simon Graham's doctoral thesis examines whether a sexual health quality improvement program can increase and improve sexually transmitted infection testing and management.

Data collection has occurred using two methods: firstly, an extraction tool which captures data from the Patient Information Management System at each of the participating Aboriginal Community Controlled Health Services, as well as through a clinical audit examining missed opportunities to offer a chlamydia and gonorrhoea test to people aged 15-24 years.

"My project has highlighted a number of gaps in STI testing and management for each participating service," Simon said, "and with clinic staff we are developing strategies to address these gaps."

Currently, all participating services are implementing the changes in STI testing and management.

Untreated chlamydia and gonorrhoea infection can cause a range of poor reproductive health outcomes, especially for young people, including pelvic inflammatory disease, miscarriage, chronic pelvic pain, ectopic pregnancy and infertility in both males and females. It is hoped that this project will increase opportunistic STI testing among young people and therefore increase early detection of infection and earlier treatment.

Simon Graham BIS, MAppl Epid; PhD candidate, Aboriginal and Torres Strait Islander Health Program Thesis title: An intervention to improve sexually transmitted infection (STI) and bloodborne virus (BBV) testing and management in selected Aboriginal Community Controlled Health Services in New South Wales.

Supervisors: Rebecca Guy, Handan Wand

feasibility study

The aim of this project is to link notifiable diseases database with other health data and provide availability and validity of epidemiological data on notifiable diseases in Aboriginal people in NSW, so that incidence and prevalence of these diseases can be more accurately estimated. The objective of this project is to link records from the Notifiable Diseases Database (NDD) with other routinely collected population health databases to prepare a de-identified 'snapshot' dataset, with improved completeness of Aboriginal

Status: Linkage complete; data analysis and interpretation underway

Personnel: Jeremy McAnulty, James Ward, Amalie Dyda, Paula Spokes, Jenny Hunt, Mark Bartlett

Funding: NSW Health

Location: Aboriginal and Torres Strait Islander Health Program

Development and trial of Key Performance Indicators for sexually transmitted infection control in clinical settings with high bacterial prevalence

A review of the literature has revealed a lack of performance indicators relevant to settings with a high prevalence of bacterial STI, such as in the Northern Territory (NT). This project aims to identify, develop, trial and endorse a core set of key performance indicators (KPI) relevant to STI control in the NT. This will improve monitoring of STI control programs allowing comparison between regions and services.

Status: Completed in 2010 Personnel: Bronwyn Silver, Alice Rumbold, James Ward, John Kaldor, Steven Skov

Funding: NHMRC Program Grant Location: Aboriginal and Torres Strait Islander Health Program

A situational analysis of public health responses to chronic hepatitis B in the Torres Strait

This study is designed to identify priorities for an effective public health response to chronic hepatitis B in the Torres Strait through describing the impact of chronic hepatitis B infection on people and communities throughout the Torres Strait and to document how health service providers respond.

Status: Data collection underway **Personnel:** Patricia Fagan, Cheryl Sendall, Yoko Nakata, Marian Pitts, Jack Wallace, James Ward, Stephen McNally

Funding: Latrobe University
Location: Aboriginal and Torres Strait

Islander Health Program

Pelvic Inflammatory Disease in the primary health care setting: an investigation of clinical management

This project is a review of current clinical practice in relation to the management of women of reproductive age who present to remote community clinics in Central Australia with signs and symptoms of pelvic inflammatory disease and or urinary tract infection.

Status: Data collection complete, interpretation and analysis and dissemination underway

Personnel: Bronwyn Silver, Alice Rumbold, Kirsty Smith, Janet Knox, James Ward, John Kaldor, Jacqueline Boyle Funding: NHMRC Program Grant Location: Aboriginal and Torres Strait Islander Health Program

Indigenous injecting use in Queensland (IIDU): a peer based research project

This research aims to explore the patterns of use, risks and outcomes of Indigenous injecting drug users (IDUs) in Oueensland.

Status: Data collection complete, Analysis underway

Personnel: Robert Kemp, Jake Najman, Sidney Williams, James Ward Funding: Queensland Health Location: Aboriginal and Torres Strait Islander Health Program

Evaluation and monitoring of six Commonwealth-funded STI Youth Demonstration Projects

In partnership with the AIHW, the Kirby Institute evaluated six Department of Health and Ageing-funded Aboriginal and Torres Strait Islander youth demonstration projects. The projects' objectives were to improve sexual health service delivery in funded organisations.

Status: Completed in 2011 Personnel: James Ward, John Kaldor Funding: Australian Institute of Health and Welfare (AIHW)

Location: Aboriginal and Torres Strait Islander Health Program

The role of resiliency in responding to blood-borne viral and sexually transmitted infections in Indigenous communities

A collaborative project between Australia, Canada and New Zealand to examine resilience to blood-borne viruses (BBVs) and sexually transmissible infections (STIs) in Indigenous communities. With a focus on adolescents and young adults in urban settings, the Australian component of the study seeks to identify factors that protect against acquisition of BBV/STI and promote access to prevention and treatment, and provide capacity building opportunities for Indigenous researchers and Aboriginal Community Controlled Health Services. In 2011 surveys data

were collated and analysis commenced. Health services undertook data analysis training.

Status: Ongoing

Personnel: Julie Mooney-Somers, Anna Olsen, Joanne Micallef, Lisa Maher, John Kaldor

Collaborators: Townsville Aboriginal and Islanders Health Service Ltd; The Aboriginal Medical Service Coop Ltd, Redfern; Derbarl Yerrigan Health Service, Perth; Centre for Infectious Disease Prevention and Control, Health Canada; Canadian Aboriginal AIDS Network; University of Ottawa; Ngã Pae o te Mãramatanga, University of Auckland; Auckland University of Technology; University of Otago Medical School **Funding:** Tripartite Cooperation Agreement between Canadian Institutes of Health Research (CIHR); National Health and Medical Research Council of Australia (NHMRC); Health Research Council of New Zealand (HRC) **Location**: Viral Hepatitis Epidemiology

Location: Viral Hepatitis Epidemiology and Prevention Program and Public Health Interventions Research Group

Liver Spots: A study of hepatitis B knowledge, treatment and health care among Indigenous Australians

This project aims to engage Indigenous individuals, families and communities affected by hepatitis B, as well as health care providers and policy makers in addressing the social and treatment needs of Aboriginal and Torres Strait Islander people living with chronic hepatitis B. Working with both urban and rural/remote communities, the study will investigate facilitators and barriers to biomedical knowledge, cultural healthcare needs, traditional health beliefs and facilitators and barriers of treatment uptake. Information generated from in-depth interviews and survey data will contribute to meeting the chronic health management and treatment needs of participating individuals and communities as well as providing data to inform the development of culturally appropriate resources and services for Indigenous Australians. Pilot work on the project began in late 2010. Status: Ongoing

Personnel: Anna Olsen, Lisa Maher Funding: NHMRC Training Fellowship Location: Viral Hepatitis Epidemiology and Prevention Program

The International Collaboration of Incident HIV and hepatitis C in Injecting Cohorts (InC3) Collaborative Group

InC3 was established to create a merged international multi-cohort project of pooled data from well characterised cohorts of injecting drug users in order to conduct studies of risk, incidence and the natural history of acute HIV and HCV infection. Specific aims are to: 1) Examine temporal trends in HIV and HCV incidence, and determine the behavioural, social, and biological factors that explain trends over time; 2) Estimate HCV incidence rates by HIV status and sexual behaviour; 3) Estimate the rate and determinants of spontaneous viral clearance of acute HCV infection in IDU; 4) Estimate the rates, outcomes and key predictors of HCV re-infection and re-clearance among HCV resolvers; 5) Examine whether HCV infection disclosure capacity, bibliometrics has been used in is associated with changes in risk exposures in IDU and; 6) Assess factors associated with initiation, adherence and effectiveness of clinical treatment of acute HCV. This collaboration has been successful in pooling behavioural, clinical and virological data on 522 participants with well-defined HCV seroconversion events from nine cohorts in Australia, Canada, Europe and the United States. This is the largest consortium of investigators assembled to investigate acute HCV infection. The behavioural, clinical and virological data already collected and the access to stored specimens from this merged study has the potential to provide invaluable insight into the control of HCV infection, including the development of novel HCV therapeutics and vaccine strategies.

Status: The second data merger in September 2011.

Enrolled: 522 participants Personnel: Gregory Dore, Jason Grebely, Lisa Maher, Tanya Applegate, Gail Matthews, Maryam Alavi

Collaborators: Inflammation and Infection Research Centre UNSW, The Burnet Institute, Université de Montréal,

University of California San Francisco, the University of Amsterdam and Public Health Service of Amsterdam, Harvard, Johns Hopkins; UNSW; Johns Hopkins University; Massachusetts General Hospital Funding: NIH

Location: Viral Hepatitis Epidemiology and Prevention Program and Viral Hepatitis Clinical Research Program

A bibliometric analysis of research capacity building in HIV in low-income countries

Many international health research programs aspire to the twin goals of acquiring new scientific knowledge and the building of research capacity in the institutions and workforce of developing country partners. While there is no standard approach to measuring research a number of developing country settings. We aimed to assess the change in research capacity over time, through a ten year analysis of trends in authorship positions and predictors of authorship.

Status: Ongoing

Personnel: Skye McGregor, John Kaldor Collaborators: Klara Henderson, Policy Cures

Funding: Nil

Location: Public Health Interventions Research Group

Predictors of research involvement for developing country UNSW Public Health research graduates

Research in Masters and Doctoral degrees are pathways to understanding methods and the role of research. In developing countries, there are often limited graduation education opportunities; as a consequence students often complete studies overseas. The question is whether these students go on to have careers in research, and contribute to the research capacity of their country. Our aim is to describe the characteristics of UNSW public health research graduates, to

measure their research output and to analyse predictors of research involvement.

Status: Ongoing

Personnel: Skye McGregor, John Kaldor Collaborators: Klara Henderson, Policy Cures, Joanne Travaglia, School of Public Health and Community Medicine

Funding: Nil

Location: Public Health Interventions Research Group

ASIA-PACIFIC REGION

TREAT Asia HIV Observational Database (TAHOD)

Observational cohort study of patients with HIV at 19 sites throughout the Asia-Pacific region. Demographic, clinical and treatment data are aggregated twice each year via electronic data transfer. Status: At the data transfer in March 2011, baseline and retrospective data from some 5000 patients from 19 sites were aggregated. It is expected that follow up will continue for at least a further three years.

Personnel: Jialun Zhou, Awachana Jiamsakul, Matthew Law, David Cooper Collaborators: Network of 19 clinical sites at countries throughout the Asia-Pacific

Funding: American Foundation for AIDS Research (amfAR) via a US National Institutes of Health grant through the International Epidemiologic Databases **Evaluating AIDS collaboration Location:** Biostatistics and Databases Program

TREAT Asia Studies Evaluating Resistance (TASER)

There are two studies: First, a surveillance study (TASER-S) examining rates of transmitted HIV-resistance in newly diagnosed HIV-infected subjects not previously treated with antiretroviral

drugs. Second, a monitoring study (TASER-M) assessing rates of developing HIV-resistance in patients starting antiretroviral treatments.

Status: Approximately 2000 naive and experienced patients had been recruited to TASER-M. Enrolment and follow up have ceased. The TASER-M cohort will be terminated in December 2011 with some of the patients being transferred into TAHOD for future follow up.

TASER-S: Approximately 480 patients have been recruited from 5 sites. Recruitment has ceased for this study.

Personnel: Awachana Jiamsakul, Jialun Zhou, Rebecca Oyomopito, Matthew Law, Collaborators: Network of 12 sites in South East Asia

Funding: American Foundation for AIDS Research (amfAR) via a grant from the government of the Netherlands **Location:** Biostatistics and Databases Program

TREAT Asia Paediatric HIV Observational Database (TApHOD)

TREAT Asia Paediatric HIV Observational Database (TApHOD) is a collaborative cohort of HIV-infected children in the Asia-Pacific region. The study participants are recruited from TREAT Asia clinical sites. Demographic, clinical and treatment data are aggregated twice each year via electronic data transfer. Currently, 18 sites in six countries have agreed to participate and transferred their data to the Kirby Institute.

Status: Up to March 2011, 4045 children were recruited into TApHOD. Of these 3277 (81%) children have received antiretroviral treatment. There have been 345 (8.5%) deaths, 490 (12.1%) lost to follow-up, and 416 (10.3%) transfers to other clinics.

Personnel: Azar Kariminia, Matthew Law Collaborators: Network of 18 sites initially throughout the Asia-Pacific region Funding: TApHOD is funded by The Foundation for AIDS Research (amfAR), the Austrian AIDS Life Association, and the US National Institute of Child Health and Human Development (NICHD). **Location:** Biostatistics and Databases

TREAT Asia Quality Assurance Scheme (TAQAS)

To ensure capacity in HIV resistance testing in the Asia-Pacific region, a quality assurance scheme was implemented. Twice a year, HIV-infected blood samples are distributed to laboratories around the region, with returned HIV resistance test results compared to a consensus result. **Status:** Two sets of blood samples were circulated in March and October to up to 22 laboratories.

Personnel: Jialun Zhou, Rebecca Oyomopito, Matthew Law Collaborators: Network of 22 laboratories: National Reference Laboratory, Melbourne; Stanford University Funding: American Foundation for AIDS Research (amfAR)

Location: Biostatistics and Databases Program

HIV Consortium for Partnerships in Asia and the Pacific

The HIV Consortium for Partnership in Asia and the Pacific was established in 2007 and has nine member organisations comprising a broad range of HIV advocacy and technical expertise from Australia. The Consortium and its members are responsible for implementing AusAID's Regional HIV Capacity Building Program. NCHECR is partnering with academic institutions in Indonesia and Cambodia to build capacity in HIV research methodologies.

Status: Ongoing

CAMBODIA

Personnel: Louise Causer, John Kaldor, Skye McGregor, Janaki Amin, Kathy Petoumenos, Sarah Huffam Collaborators: IHRG, ARCSHS, ASHM. Albion Street Centre, NRL, Scarlet Alliance, AFAO, AIVL (Australia); NCHADS (Cambodia); JEN, Udayana University, Gadjah Mada University (Indonesia) Funding: AusAID

Location: Public Health Interventions Research Group

Young Women's Health Study (YWHS) II: Culture and HIV prevention in Cambodia

The YWHS is a prospective study of young (15 to 29 years) women engaged in sex work in Phnom Penh. Women are followed up at quarterly intervals and asked to complete a structured questionnaire in Khmer and to provide blood for HIV testing, self-collected urine for chlamydia, gonorrhoea and ATS testing, and cervical swabs for human papilloma virus (HPV) testing. HPV vaccination is offered to eligible participants. Aims are to: 1) estimate prevalence and incidence of HIV and STIs including HPV; 2) examine the socio-cultural factors and risks associated with ATS use and; 3) assess rates of completion and adherence to a multi-dose vaccine regimen for the prevention of HPV. As part of the YWHS, trained interviewers also conducted qualitative in-depth interviews to explore social and cultural influences on HIV/STI risk and protective behaviours and ATS use.

Status: Data are being analysed and

results prepared for publication Personnel: John Kaldor, Lisa Maher Collaborators: University of California. San Francisco (lead); NCHADS; Cambodian Women's Development Association.

Funding: National Institutes of Health **Location**: Viral Hepatitis Epidemiology and Prevention Program

New hazards for young women sex workers: Effects and crises arising from recent anti-trafficking laws in Cambodia

This qualitative study aims to assess the impact and effects of the implementation of recent anti-trafficking and antiprostitution laws on female sex workers (FSW) in Phnom Penh, Cambodia. Specifically, the study aims to 1) Assess the impact of these laws on individual risk and protective behaviours and risk environments (sex work settings) and; 2) Document how women have adapted to the reputed harsh and severe implementation of these laws.

Status: Ongoing Personnel: Lisa Maher

Collaborators: University of California, San Francisco (lead): Cambodian Women's Development Association.

Funding: University of California Pacific Rim Research Program

Location: Viral Hepatitis Epidemiology and

Prevention Program

EUROPE

Staying safe: A sociology of how injecting drug users avoid viral infection in the long-term

This study aims to reconstruct the life trajectories of injecting drug users to identify social practices and conditions linked to long term avoidance of hepatitis C virus infection. Using qualitative life history studies from long-term PWID who have not been exposed to hepatitis C alongside those who have been exposed; this is the first research in the UK on long-term avoidance of viral infections associated with injecting drug use. To date a total of 38 in-depth qualitative interviews have been conducted.

Status: Ongoing Personnel: Lisa Maher

Collaborators: London School Hygiene Tropical Medicine, University of London (lead); National Development and Research Institutes, New York; National Centre for HIV Social Research.

Funding: Economic and Social Research Council

Location: Viral Hepatitis Epidemiology and Prevention Program

Scabies - Factors associated with scabies in a highly endemic population

This study has three main objectives: to characterise the participants in a Fiji community survey of scabies; to identify environmental and demographic risk factors for scabies in Fiji; and to provide information on possible preventative measures for scabies.

Status: Commenced late 2010 **Personnel:** John Kaldor

Collaborators: Lucia Romani, Margot Whitfield, Andrew Steer Funding: NHMRC Project Grant

Location: Public Health Interventions Research Group

PAPUA NEW GUINEA

Investigating sexual behaviours among male/female adults and youths in Pagua New Guinea

Sexually transmitted infections (STIs) constitute an important public health problem in PNG. To address this problem, the governments of PNG and Australia have initiated STI prevention program; five international Non-Government Organizations (NGOs) have been engaged to pilot an STI intervention program in eight provinces in PNG.

Status: ongoing Personnel: Handan Wand

Collaborator: Institute of Medical Research (IMR), Goroka, PNG Funding: AusAID

Location: Biostatistics and Databases

Program

Women's and men's experiences of preventing mother-to-child transmission (PMTCT) in Papua New Guinea: a gendered socio-cultural analysis of barriers and facilitators for program engagement

PNG is experiencing an expanding heterosexual HIV epidemic, placing an increasing number of newborns at risk of acquiring infection. This research seeks to understand the gendered sociocultural aspects influencing the uptake and outcomes of PMTCT programs from the perspectives of antenatal women, their partners, and health care workers. It seeks to undertake an assessment of PMTCT programs; examine knowledge, attitudes and decision-making processes regarding PMTCT; test enablers of return for safe delivery and post-natal care; examine experiences of consent, counselling and confidentiality; determine gender-specific barriers/facilitators to accessing PMTCT programs; develop recommendations for improved PMTCT programs.

Status: Commenced late 2009

Personnel: John Kaldor Collaborators: Heather Worth, Angela Kelly, Barbara Kepa, Martha Kupul, Grace Kariwiga, Glen Mola, Tarcisia Hunhoff, PNG Institute of Medical Research, UNICEF, University of Papua New Guinea, Catholic Health Services, International HIV Research Group, UNSW Funding: AusAID Australian Development Research Award Location: Public Health Interventions

Research Group

Research and education in HIV/AIDS for resource-poor countries: REACH Initiative Diagnosis of tuberculosis in HIV infected and uninfected children in Papua New Guinea with a T-cell based assay: a prospective study

Diagnosis of PTB in children in settings such as Papua New Guinea (PNG) is therefore usually made on the basis of a combination of contact history, clinical findings, tuberculin skin test (TST) and radiological findings if available. This approach can lack sensitivity and specificity, particularly in young children who are the most susceptible group to TB disease in childhood. As a result, children may be either under- or over-treated. The project aims to investigate the role of the QFN test in the management of paediatric TB in PNG.

Status: Completed 2011. Manuscript submitted.

Personnel: Wari Allison, John Kaldor, Louise Causer

Collaborators: Hong Van Tieu, Dr Jintanat, Dr Thanyawee, John Vince, Prof Tefuarani, Mobumo Kiromat

Funding: Tibotec Virco Virology BVBA Location: Public Health Interventions

Research Group

MCAIS: Male Circumcision Acceptability & Impact Study, PNG

This four-year multi-disciplinary community-based research program is investigating the potential of male circumcision for HIV prevention in Papua New Guinea and has four principal components: ethnographic research; mathematical modelling; health systems research; and longitudinal clinical cohort studies. The study is being carried out among a combination of general and at-risk population cohorts at multiple sites in PNG. A sub-study to investigate the notional acceptability of a vaginal microbicide surrogate for HIV prevention among women and men attending a sexual health clinic in Port Moresby was completed in 2010. MCAIS jointly organised a National Policy Forum on Male Circumcision for HIV Prevention in PNG, which was held in Port Moresby in November 2011 with the purpose of translating research evidence into public health policy and practice.

Status: To be completed December 2011
Personnel: Andrew Vallely, John Kaldor,
Peter Siba, Angela Kelly, Lisa Fitzgerald,
Claire Ryan, James Neo, Martha Kupul,
Herick Aeno, Voletta Fiya, Petronia Kaima,
Zure Kombati, John Millan, Greg Law,
Joyce Sauk, Andrew Page, John Murray,
David Wilson, Richard Gray Peter Hill,
Anna Tynan

Collaborators: PNG Institute of Medical Research; Mt Hagen General Hospital, PNG; HOPE Worldwide, PNG; University of Queensland, Australia; The Burnet Institute, Melbourne.

Funding: AusAID Australian Development Research Award (ADRA)

Location: Public Health Interventions Research Group

Qualitative longitudinal study to investigate constructions of masculinity, sexuality and agency among male youth in Papua New Guinea (NACS Masculinities Study, PNG)

This two-year multi-disciplinary community-based research program will investigate the role that individual, community and cultural constructs of masculinity, male sexuality and sexual agency have in determining sexual behaviour among young men in PNG, and specifically, their role in promoting behaviours known to increase the risk of HIV and STIs among men and women. The study will be conducted in Eastern and Western Highlands Provinces, PNG where 50 to 60 in-school and out-of school male youth aged 16-17 years will be recruited into a qualitative longitudinal research study and followed up every three months for up to 18 months.



AMIT ACHHRA

Mining the databases

The data for Amit Achhra's doctoral thesis, which is designed to tease out factors determining the long-term health issues of HIV-positive people receiving antiretroviral therapy, came mostly from existing cohorts and from a group of studies with large enrolments.

"I was fortunate to have access to the AHOD and TAHOD databases, and the INSIGHT group's trial data from ESPRIT, SMART and SILCAAT," said Dr Achhra, who plans to submit his thesis during 2012. As HIV-positive people are living longer, thanks to very efficient antiretroviral therapy, the focus has shifted to the longterm health problems not traditionally thought to be related to HIV, such as heart, liver and kidney disease. These problems, under the umbrella term 'non-AIDS' diseases, are now the major health concern in those HIV-positive people receiving treatment. Multiple factors are thought to be causing these non-AIDS diseases, such as toxicity from life-long treatment, ageing, and ongoing damage by the HIV virus. "My research has been looking at these problems at several levels through our projects in national and international clinical cohort studies." Dr Achhra said. "We have been trying to identify if new biomarkers can improve our ability to predict the occurrence of death due to non-AIDS diseases. If successful, we will have new tests which clinicians could order to better manage such patients." Moreover, treatment is now increasingly available in low-middle income countries such as those in Asia, which are a very different group of HIV-infected people compared to their counterparts in Australia. "We have been comparing these populations to identify factors unique to

Amit C Achhra, MBBS, MPH, PhD candidate Biostatistics and Databases Program Thesis title: Biomarkers and long-term mortality in HIV infected individuals in the era of antiretroviral therapy.

Supervisors: David Cooper, Janaki Amin; Matthew Law

Asian populations in terms of determining

their long-term health," Dr Achhra said.

Status: To be completed December 2012 Personnel: Andrew Vallely, Angela Kelly, Lisa Fitzgerald, Peter Siba, Maxine Whittaker, John Kaldor, John Millan, Joyce Sauk, Herick Aeno, James Neo, Zure Kombati

Collaborators: PNG Institute of Medical Research, University of Queensland. Funding: National AIDS Council Secretariat, Papua New Guinea (NACS) Location: Public Health Interventions Research Group

HSV-2 / HIV Epidemiology Study, PNG

This project will investigate the epidemiology of Herpes simplex Type-2 (HSV-2) among 100 HIV sero-positive and 200 HIV sero-negative individuals attending sexual health clinics in Goroka and Mt Hagen, PNG; and investigate the performance of different diagnostic assays for the detection of HSV-2.

Status: Fieldwork to commence Feb 2011; study to be completed by Dec 2011 Personnel: Glennis Rai, Sepehr Tabrizi, Claire Ryan, Peter Siba, Andrew Vallely, John Kaldor, Zure Kombati, Petronia Kaima, Cassey Simbiken

Collaborators: PNG Institute of Medical Research, Goroka General Hospital, Mt Hagen General Hospital Funding: National AIDS Council

Secretariat, Papua New Guinea (NACS)
Location: Public Health Interventions
Research Group

The epidemiology of sexually transmitted infections, including human papillomavirus, among pregnant women attending antenatal clinics at four sites in Papua New Guinea (STIs in Pregnancy Study, PNG)

This study will investigate the epidemiology of sexually transmitted infections, including human papillomavirus (HPV), HIV and Herpes simplex type-2 (HSV-2) among 1000 women attending antenatal clinics in four provinces in PNG. It will provide the first general population level estimates of HPV type prevalence and is expected to inform future policy on HPV vaccination and cervical cancer prevention in PNG.

Status: fieldwork commencing December

Personnel: Andrew Vallely, Claire Ryan, John Kaldor, Handan Wand, Lisa Vallely, Suparat Phyanukoonnon, Peter Siba, Glen Mola, Greg Law, John Millan, Glennis Rai, Sepehr Tabrizi

Collaborators: PNG Institute of Medical Research; National Department of Health, PNG; The Burnet Institute, Melbourne; Royal Women's Hospital, Melbourne. Funding: PNG Partnership in Health Program.



ANDREW VALLELY

Sexual and reproductive health in PNG

Andrew Vallely has been based at the Papua New Guinea Institute of Medical Research (PNG IMR) in Goroka since November 2010, where he heads the Sexual and Reproductive Health Unit (SRHU). An important focus of his work is cervical cancer. "We estimate that around 1,500 women die every year of cervical cancer in PNG," Dr Vallely said. "Many of those with advanced disease are unable to access radiotherapy, effective pain relief or palliative care services. It's the most common

cancer among women, at a time when the rate of pre-cancerous lesions of cervical cancer in young women across Australia is dropping dramatically in response to the roll out of the human papillomavirus (HPV) vaccine."

This has prompted Dr Vallely, with support from Public Health Interventions Research Group (PHIRG) head Professor John Kaldor, to develop an integrated multi-disciplinary program of research looking at HPV and cervical cancer in PNG. "This is robust, policy-relevant research to improve sexual and reproductive health in PNG," Dr Vallely said. "First we are looking at the epidemiology of HPV and cervical cancer in PNG; then we are exploring the meanings and beliefs of cervical cancer, its cause, treatment and prevention. We are supporting the National Department of Health to establish a new cervical screening and early treatment program, based on visual inspection of the cervix with acetic acid plus cryotherapy, and will be conducting research to establish the accuracy, acceptability and feasibility of this

approach in PNG. Finally, we are planning to look

at the acceptability and uptake of HPV vaccine in

a pilot study that will help guide future wide scale

roll-out, should the country decide to proceed with this strategy." As a result of this work, he is now a member of the PNG National Task Force on Cervical Cancer.

Another part of Dr Vallely's work is to investigate biomedical strategies for the prevention of HIV and STIs. In a country where traditional and contemporary forms of foreskin cutting are widespread, his group is looking at the acceptability, epidemiological impact and options for future intervention roll-out of male circumcision for HIV prevention. Key fundings from the four-year AusAID-funded Male Circumcision Acceptability and Impact Study (MCAIS), which he led with Professor Kaldor and the Director of PNG IMR, Professor Peter Siba, were presented at a Joint National Policy Forum held in Port Moresby last year.

Dr Andrew Vallely MBBS, MRCP, MSc, DTMH, PhD Associate Professor, Public Health Interventions Research Group Deputy Director, PNG Institute of Medical Research Head, Sexual and Reproductive Health Unit, PNG Institute of Medical Research

Location: Public Health Interventions Research Group

Human papillomavirus infection among women attending sexual health clinics in Mt Hagen, Goroka and Port Moresby, Papua New Guinea (HPV Study PNG)

This study will investigate the epidemiology of human papillomavirus (HPV) and other sexually transmitted infections among women attending sexual health clinics in three provinces in PNG. It will provide the first estimates of HPV type prevalence among women at increased risk of HIV/STI acquisition in PNG and is expected to inform future policy on cervical cancer screening and prevention. **Status:** Enrolment to start January 2012 Personnel: Andrew Vallely, Claire Ryan, John Kaldor, Handan Wand, Peter Siba, Greg Law, Petronia Kaima, Zure Kombati, Joyce Sauk, Sandra Yamuwe, Glen Mol, Nola N'derewei, Sepehr Tabrizi Collaborators: PNG Institute of Medical Research; National Department of Health, PNG; HOPE Worldwide, PNG; Mt Hagen General Hospital: Save the Children in PNG: The Burnet Institute, Melbourne:

Cervical cancer screening using visual inspection with acetic acid (VIA) and its relationship to cervical cytology and high-risk human papillomavirus (HR-HPV) infection among women attending Well Woman Clinics in Papua New

Royal Women's Hospital, Melbourne

Location: Public Health Interventions

Funding: AusAID PNG

Guinea (VIA Study PNG)

Research Group

This study will investigate the prevalence of VIA-detectable cervical abnormalities; cervical intraepithelial dysplasia; high-risk human papillomavirus (HR-HPV) infection; and the behavioural and biological determinants associated with risk, among women attending Well Woman clinics in Eastern and Western Highlands Provinces, PNG. The study will determine the acceptability and operational feasibility of VIA plus cryotherapy ('test and treat') as an intervention for cervical cancer screening and treatment among urban and rural populations in PNG, and is being conducted in order to inform future national policy on cervical cancer screening.

Status: Participant enrolment to commence February 2012

Personnel: Andrew Vallely, Claire Ryan, John Kaldor, Glen Mola, Antonia Kumbia, Benny Kombuk, Handan Wand, Lisa Vallely, Angela Kelly, Joanne Goyen, Phillip Baird, Greg Law, Peter Siba

Collaborators: PNG Institute of Medical Research, National Department of Health, PNG, Mt Hagen General Hospital, Goroka

General Hospital, MeriPath PNG; The Burnet Institute, Melbourne Funding: AusAID PNG Location: Public Health Interventions

Research Group

Meanings and beliefs of cervical cancer, its causation, prevention and treatment in Papua New Guinea

This mixed-method qualitative study will investigate socio-cultural contexts of cervical cancer in Papua New Guinea in order to inform future national prevention and care strategies, including HPV vaccination and cervical screening programs.

Status: Fieldwork to commence February 2012

Personnel: Angela Kelly, Andrew Vallely, John Kaldor, Glen Mola, Antonia Kumbia, Benny Kombuk, Alex Golpak, Lisa Vallely, Primrose Homiehombie, Jane Jones, David Wood, Peter Siba

Collaborators: PNG Institute of Medical Research, National Department of Health, PNG, Mt Hagen General Hospital, Goroka General Hospital, Kimbe Hospital Funding: AusAID PNG

Location: Public Health Interventions Research Group

SOUTH AFRICA

Biological and behavioural impacts of risk factors in HIV prevention research

A scoring system developed will be piloted first time among women who will enrol in MTN 020 – ASPIRE (A Study to Prevent Infection with a Ring for Extended Use). ASPIRE is a Phase III safety and effectiveness trial of a vaginal ring containing antiretroviral dapivirine that is expected to be launched at several sites in South Africa beginning in September 2012. Status: ongoing

Personnel: Handan Wand (Chief investigator)

Collaborator: HIV Prevention Research Unit (HPRUMRC), Durban South Africa Funding: HIV Prevention Research Unit (HPRUMRC), Durban South Africa Location: Biostatistics and Databases Program

Biostatistics and Database Support

Developing clinical trial databases, and providing biostatistical input to the design and analysis of all Kirby Institute projects. Status: During 2011, members of the Program actively contributed to the design of, or analysed data from, the ALTAIR, ENCORE, SMART, ESPRIT, SILCAAT, Second line, and MARCH studies (see Therapeutic and Vaccine Research Program); the ATAHC and ATAHC II studies (Viral Hepatitis Clinical Research Program); the ACCEPt study (Sexual Health Program); the STRIVE study (Aboriginal and Torres Strait Islander Program); the NSP survey (Viral Hepatitis *Epidemiology and Prevention Program)*; and national surveillance activities (Surveillance and Evaluation Program for Public Health).

Personnel: Noorul Absar, Amit Achhra, Janaki Amin, Rossitza Chevkenova, Paul Fahey, Kathy Petoumenos, Handan Wand, Jialun (Julian) Zhou

Collaborators: Other programs at the Kirby Institute

Funding: Project-specific grants **Location:** *Biostatistics and Databases Program*





SURVEILLANCE COMMITTEES Hospital

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3rd Coalition for Research to Improve Aboriginal Health (CRIAH) Conference Scientific Advisory Committee (James Ward) 8th Australasian Viral Hepatitis Conference Organising Committee

8th Australasian Viral Hepatitis Conference Organising Comn (Greg Dore Co-chair, Tanya Applegate)

9th International Congress on Drug Therapy in HIV Infection Scientific Committee (HIV9) (David Cooper)

12th IUSTI World Congress, Melbourne, 2012, Organising Committee (Basil Donovan)

13th International Workshop on Adverse Drug Reactions and Lipodystrophy in HIV Organising Committee (David Cooper) 14th Bangkok Symposium on HIV Medicine Organising Committee (David Cooper)

1st Canadian Symposium on Hepatitis C Virus, Montreal, Canada, Organising Committee (Jason Grebely)

2012 International Microbicides Conference M2012 Organising Committee (John Kaldor [Chair], Andrew Vallely, Lisa Maher) 2012 International Microbicides Conference M2012 Scientific Program Committee (Lisa Maher)

2012 Microbicides Conference Organising Committee (Mary Poynten)

Aboriginal Sexual Health and Hepatitis Advisory Committee (James Ward)

ACCESS Aboriginal Community Controlled Health Service steering committee (James Ward, John Kaldor)

ACCESS family planning network steering committee (Basil Donovan, Rebecca Guy)

ACCESS general practice network steering committee (Basil Donovan, Rebecca Guy)

ACCESS sexual health service network steering committee (Hammad Ali, Basil Donovan, Rebecca Guy, John Kaldor) Addiction and Moral Agency ARC Discovery Project Advisory Committee (Lisa Maher)

AIDS and Behaviour Editorial Board (Garrett Prestage)

AIDS Council of New South Wales Board (Garrett Prestage)
AIDS Council of New South Wales Ethics Review Committee
(Garrett Prestage chair)

AIDS Council of New South Wales HIV and Sexually Transmissible Infections Working Group (Garrett Prestage)

AIDS Council of New South Wales Lesbian Health Board Advisory Committee (Julie Mooney-Somers)

AIDS Council of New South Wales Research and Policy Advisory Committee (Garrett Prestage)

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Altair Trial MRS Substudy Protocol Steering Committee (David Cooper, Sean Emery, Steve Kerr, Rebekah Puls)

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Asian Network of People who Use Drugs, Hepatitis C Technical Advisory Group (Lisa Maher)

Asian Pacific Journal of Tropical Biomedicine Editorial Board (David Wilson)

ATAHC II Protocol Steering Committee (Greg Dore, Gail Matthews, Jason Grebely, Kathy Petoumenos)

Australasian Health and Research Data Managers Association
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Australasian Society for HIV Medicine, Antiretroviral Guidelines Panel (Fraser Drummond)

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Australasian Society for HIV Medicine, Expert Advisory Committee Aboriginal and Torres Strait Islander Health (James Ward)

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Australasian Society for HIV Medicine, HIV and the Body Steering

Committee (Sarah Pett) Australasian Society for HIV Medicine, National Clinical Subcommittee (Fraser Drummond)

Australasian Society for HIV Medicine, NSW Hepatitis B Reference Committee (Gail Matthews)

Australasian Society for HIV Medicine, NSW Hepatitis C Reference Committee (Gail Matthews)

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Australasian Society for Infectious Diseases Annual Scientific

Meeting Organising Committee (Chris Weatherall)
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Australian Government Department of Health and Ageing-funded

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Australian Liver Association Clinical Trial Network Executive Committee (Greg Dore)

Australian New Zealand Breast Cancer Trials Group Independent Data Safety and Monitoring Committee (Matthew Law) Australian NSP Survey National Advisory Group (Jenny Iversen, Lisa Maher, Libby Topp)

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Biomedical Prevention Working Group (ex officio) (Basil Donovan, Andrew Grulich, Rebecca Guy, John Kaldor, James Ward, Iryna Zablotska)

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CHEST Management Committee (Bette Liu)

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Current HIV/AIDS Reports Editorial Board (David Cooper, Honorary Member)

Current Opinion in HIV and AIDS (David Cooper, co-editor)
Current Opinion in HIV and AIDS Editorial Board (John Kaldor)
Department of Human Services Victorian HIV Taskforce (James Ward)

Developing Papua New Guinea's National HIV Strategy 2011-2015 (David Wilson, expert reviewer)

Drug and Alcohol Review Editorial Board (Peter Higgs, Lisa Maher) eJournal of the International AIDS Society Editorial Board (John Kaldor)

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Encore1 Neurocognitive Substudy Protocol Steering Committee
(Rebekah Puls, Anna Donaldson, Steve Kerr, Amanda Clarke)
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HIV Consortium for Partnership in Asia and the Pacific
Management Committee (John Kaldor, Louise Causer)
HIV DART 2008 Conference Organising Committee (David
Cooper co-chair)

HIV Netherlands, Australia, Thailand Research Collaboration (HIV-NAT) International Advisory Board (David Cooper, Co-Director, Chris Duncombe)

HIV Star Data Safety Monitoring Board Committee (Matthew Law, Stephen Kerr)

HIV Therapy Editorial Board (David Cooper, John Kaldor) HIV+ Health Promotion Interagency (Garrett Prestage, Jack Bradley)

HIVNAT International Advisory Board (Sean Emery)
IeDEA Cancer Working Group (Matthew Law, Stephen Kerr)
IeDEA Data Harmonization Working Group (Jialun Zhou,
Rebecca Oyomopito, Azar Kariminia)

IeDEA Executive Committee (David Cooper, Matthew Law)
IeDEA Pharmacovigilance and Adverse Events Working Group
(Jialun Zhou)

Immunovirology Research Network Steering Committee (Anthony Kelleher)

Infectious Disease Reports Editorial Board (David Wilson) INSIGHT network, Executive Committee (David Cooper, Sean Emery)

INSIGHT network, Infrastructure Committee (Sarah Pett, Cate Carey) INSIGHT network, Monitoring Group Committee (David Courtney-Rodgers, Nisha Seneviratne)

INSIGHT network, Quality Oversight and Performance Evaluation Committee (David Courtney-Rodgers)

INSIGHT network, Training Committee (Cate Carey) Intensive Insulin Therapy Trialists' Collaboration Steering Committee (Bette Liu)

International Aids Society Conference Organising Committee, Basic Science Track Committee (Anthony Kelleher, co-chair) International AIDS Society Meeting, Epidemiology and Prevention Stream, Vienna, Austria, Rapporteur (David Wilson) International Centre for Science in Drug Policy, Technical Advisor

International Journal of Drug Policy Editorial Board (Jo Kimber, Lisa Maher)

(Lisa Maher)

International Journal of STD & AIDS Editorial Board (Basil Donovan) International Symposium on Hepatitis Care in Substance Users, Brussels, Belgium, Organising committee (Jason Grebely) International Union against Sexually Transmitted Infections, Executive Committee (Basil Donovan, Senior Counsellor) Journal of Acquired Immune Deficiency Syndromes Editorial Board (David Cooper)

Journal of AIDS and Clinical Research Editorial Board (David Wilson) Journal of Hepatology Editorial Board (Greg Dore)

Journal of HIV Therapy Current Trends Advisory Board (David Cooper)

Lao People's Democratic Republic National Strategy and Action Plan on HIV/AIDS/STI 2011-2015 (David Wilson expert reviewer) Lionel Murphy Foundation (Board of Trustees) (Lisa Maher) Lotus House Refuge Management Committee (Lisa Maher) Medicine Today Board of Editorial Consultants (Basil Donovan) Menzies School of Health Research Advisory Group (James Ward) Merck OpiCare Leadership Team (Greg Dore, Jason Grebely) MGM Interagency (Iryna Zablotska)

Mid Term Review Steering Committee NSW Health AIDS Branch Strategies HIV STI HCV Aboriginal Implementation Plan (James Ward)

MIMS Annual Honorary Editorial Board (Basil Donovan)
Ministerial Advisory Committee on AIDS, Sexual Health and
Hepatitis (MACASHH), Hepatitis C Subcommittee (Greg Dore)
Multicultural HIV and Hepatitis Service Advisory Group (Lisa Maher, Chair)

NACCHO Sexual Health and Bloodborne Virus Advisory Committee (James Ward)

NAPWA Treatments Policy Advisory Group (Fraser Drummond, Sarah Pett)

National Association of People Living with HIV/AIDS, HIV Medication Working Group (Dianne Carey)

National Breast Cancer Foundation Register4 Epidemiological Questionnaire Design Advisory Group (Bette Liu)

National Centre for HIV/AIDS, Dermatology and STD (NCHADS) Steering Committee for Cambodian Treatment Access Program (CTAP) and AusAID funded HIV projects (John Kaldor)

National Centre for Immunisation Research and Surveillance of Vaccine Preventable Disease Scientific Advisory Committee (John Kaldor)

National Centre in HIV Social Research (NCHSR) Scientific Advisory Committee (Lisa Maher)

National Gay Men's Syphilis Action Plan NSW Implementation Committee (Rebecca Guy)

National Gay Men's Syphilis Action Plan Steering Committee and Monitoring and Evaluation Subcommittee (David Wilson, Rebecca Guy)

National Gay Men's Syphilis Action Plan Technical Working Group (Basil Donovan, Andrew Grulich, Rebecca Guy, Garrett Prestage, David Wilson)

National Health and Medical Research Council Centres of

Research Excellence Grant Review Panel (John Kaldor) National Health and Medical Research Council Hepatitis C Reference Group (James Ward)

National Health and Medical Research Council Project Grant Review Panel Immunology (Anthony Kelleher)

National Health and Medical Research Council Project Grant Review Panel, Indigenous Health (John Kaldor)

National Health and Medical Research Council Public Health Discipline panel (Andrew Grulich)

National HIV Post Exposure Prophylaxis Guidelines Reference Group (Andrew Grulich)

National Prison Entrants Bloodborne Virus Survey Steering committee (Tony Butler, chair)

National Prisoner Health Indictor Project, Technical Expert Group (Tony Butler, chair)

National Prisoner Health Indictor Group (Tony Butler)

National Strategies STI HIV BBV project working groups (Rebecca Guy, John Kaldor, Garret Prestage, James Ward)

National Surveillance Committee (Ann McDonald)

Netherlands AIDS Foundation Grant Scheme (David Wilson, reviewer)

Northern Territory Sexual Health Advisory Group (James Ward, John Kaldor)

NSW Chapter of Sexual Health Medicine Annual Scientific Meeting Organising Committee (Fraser Drummond) NSW Chief Health Officer Report Special Topic: STI (Basil

Donovan, David Wilson, advisory group members)

NSW Department of Corrective Services Ethics Committee (John Kaldor)

NSW Greater Metropolitan Clinical Taskforce Hepatitis C Subcommittee (Greg Dore, co-chair)

NSW Health Aboriginal Sexual and Reproductive Health Program Advisory Group (James Ward)

NSW Health Advisory Group for the Chief Health Officer (CHO) Report, special topic on sexually transmissible infections (James Ward)

NSW Health CAS Health Promotion Sub-Committee Chlamydia Working Group (Rebecca Guy, James Ward)

NSW Health Expert Advisory Panel - Wide bore syringes (Lisa Maher) NSW Health Fixing the Gap In the patient Journey: Improving access to hepatitis C treatment among Aboriginal people. Project Advisory Committee (James Ward)

NSW Health HCV Prevention Campaign Advisory Committee (Bethany White)

NSW Health Mid Term Review Committee, NSW HIV, STI, HCV and Aboriginal Implementation Plan (James Ward)
NSW Health Shared Scientific Advisory Committee (Fraser

Drummond expert reviewer)

NSW Health Shared Scientific Assessment Committee (Fraser

Drummond)
NSW Health Statewide Review of AIDS Funded Services (James Ward)

NSW Health, Statewide Review of AIDS Funded Services, panel (James Ward)

NSW HIV Point of Care Testing Working Group (Andrew Grulich, Damian Conway, Rebecca Guy, Garret Prestage)

NSW Ministerial Advisory Committee on Hepatitis (MACH) (Greg Dore, Lisa Maher, James Ward)

NSW Ministerial Advisory Committee on HIV/AIDS and Sexually Transmissible Infections (James Ward)

NSW Ministerial Advisory Committee on HIV/AIDS and Sexually Transmissible Infections, Health Promotion Subcommittee (Andrew Grulich chair, Garrett Prestage member)

NSW Ministerial Advisory Committee on HIV/AIDS and Sexually Transmissible Infections Health Promotion Sub-Committee -

Chlamydia Working Group (Hammad Ali, Rebecca Guy, James Ward)

NSW Users and AIDS Association Expert Advisory Committee

(Lisa Maher)

NSW Users and AIDS Association Peer Distribution Advisory Committee (Lisa Maher)

NSW Users and AIDS Association Research Ethics Advisory Committee (Lisa Maher)

Office of Management and Budget (OMB) Peer Reviewer, Public Health Services (PHS) Guidelines for Pre-Exposure Prophylaxis (PrEP) for HIV Prevention with Men Who Have Sex with Men, Centres for Disease Control (John Kaldor)

OpiCare Leadership Team (Greg Dore, Jason Grebely)

Papua New Guinea Annual Medical Symposium 2011 Organising Committee (Andrew Vallely)

Papua New Guinea HIV Modelling Reference Group (John Murray) Papua New Guinea Policy Forum on Male Circumcision for HIV Prevention Organising Committee (Andrew Vallely, John Kaldor) Positive Life (NSW) Board Advisory Group (Garrett Prestage, Mark Bovd)

Practical Advances in Treating HIV (PATH II) Steering Committee (Sean Emery, Chair)

Primary HIV Infection Advisory Committee (John Murray) Project Management Group Randomised Control Trial, Tobacco Control AH&MRC (James Ward)

Project Reference Group NSW STI Campaign (James Ward) ProPrems Trial Data Safety Monitoring Committee (John Kaldor) Public Health Association of Australia (Tony Butler)

Public Health Association of Australia, Justice Health Special Interest Group (Tony Butler, convenor; Peter Higgs)

Public Health Research Network Advisory Committee (Heather

Queensland Ministerial Advisory Committee on HIV/AIDS, Hepatitis C and Sexual Health Member (Andrew Vallely)

Repatriation Medical Authority (John Kaldor) Review of the Australian National HIV Testing Policy, Member Expert Reference Committee, (Andrew Grulich)

Sax Institute (David Wilson)

Sexual Health (David Cooper, Editor)

Sexual Health Editorial Board (Basil Donovan, Andrew Grulich, John Kaldor, Garrett Prestage)

Sexually Transmitted Infections Programs Unit (STIPU) Advisor Group, NSW (Rebecca Guy)

Sexually Transmitted Infections, Editorial Board (David Cooper) Sexually Transmitted Infections, Elsevier, New Delhi (Basil Donovan, Section Editor)

Sidney Myer Health Scholarship Selection Committee (Peter Higgs) SIRFLOX Independent Data and Safety Monitoring Board Committee (Matthew Law)

SPARTAC Trial Steering Committee (David Cooper, Anthony Kelleher)

St Vincent's Centre for Applied Medical Research/UNSW Research degree review committee (Anthony Kelleher)

St Vincent's Hospital Campus Institutional Biosafety Committee (Anthony Kelleher)

St Vincent's Hospital Human Research Ethics Committee (Kathy Petoumenos, Handan Wand, Dianne Carey)

St Vincent's Research & Biotechnology Precinct Hub Governance Council (David Cooper)

Steering Committee for NHMRC grant under the International Collaborative Indigenous Health Research Partnership (John Kaldor)

STIGMA - NSW Implementation committee for the National Syphilis Action Plan (Rebecca Guy)

STIGMA (Iryna Zablotska)

Thai A/E Clade HIV Vaccine Trial Protocol Steering Committee (David Cooper, Sean Emery, Rebekah Puls)

The Cancer Council NSW Cancer Research Committee (Andrew Grulich)

The Data Collection on Adverse Events of Anti-HIV Drug Study International Steering Committee (Matthew Law)

The HIV/AIDS Legal Centre (HALC) Management Board (Iryna Zablotska)

The Salvation Army, Overdose Awareness Day Committee (Peter

Therapeutic Goods Administration (TGA) expert advisory panel for influenza vaccine testing (Anthony Kelleher)

TREAT Asia HIV Observational Database Steering Committee (Matthew Law, Jialun Zhou)

TREAT Asia Paediatric HIV Observational Database Steering Committee (Matthew Law, Azar Kariminia)

TREAT Asia Quality Assurance Scheme Steering Committee (Matthew Law, Jialun Zhou)

TREAT Asia Steering Committee (David Cooper)

TREAT Asia Studies Evaluating Resistance Steering Committee (Matthew Law)

UNAIDS Estimation of Australia's HIV/AIDS indicators (David Wilson)

UNSW Academic Board Committee Member (John Kaldor) UNSW Academic Board Higher Degree Research Committee

(Libby Topp)

UNSW Faculty of Medicine Postdoctoral Advisory Committee

UNSW Faculty of Medicine Research Grant/Early Career Grant Review (Anthony Kelleher)

UNSW Hepatitis C Vaccine Initiative Steering Committee (John Kaldor)

UNSW Human Research Ethics Advisory Panel: Medical/

students investigating drug use and associated topics, Sydney, Australia Organising Committee (Jason Grebely)

UNSW School of Public Health and Community Medicine

User's News and New South Wales Users and AIDS Association Advisory Group (Jason Grebely)

VAC/GMHC Sexually Adventurous Men's Project Committee (Garrett Prestage)

World Health Organisation Strategic and Technical Advisory

World Health Organisation Working Group on Incidence Assays for HIV Infection (John Kaldor co-Chair)

World Health Organisation/UNAIDS HIV Vaccine Advisory Committee (David Cooper, Chair)

(John Kaldor)

UNSW Faculty of Medicine Higher Degree Research Committee

(Jason Grebely, Mary Poynten)

UNSW Health Data Linkage committee (Heather Gidding)

Community (Greg Dore, Jo Kimber, Mark Boyd)

UNSW Postgraduate Student Seminar - Building networks among

Research Committee (Tony Butler)

Vietnamese Australian Buddhist Assistance Trust (Lisa Maher)

Committee for HIV/AIDS (David Cooper)

World Hepatitis Day Clinical and Public Health Advisory Panel (Greg Dore)

THE DIRECTOR'S UNIT

Director and Scientia Professor of Medicine

David Cooper AO FAA, BSc(Med), MB BS, MD, DSc, FAA, FRACP, FRCPA, FRCP **Executive Assistant** Janette Button Research Assistant

Damien Cordery BSc(Hons), MPH, PhD **Vaccines Program Grant Co-ordinator** John Wilkinson BSc(Hons), PhD Manager, Research Communication Louisa Wright M Journalism, MPH

ABORIGINAL AND TORRES STRAIT ISLANDER PROGRAM

Head and Senior Lecturer James Ward BA Research Manager Simon Graham BIS, MApplEpid **National Co-ordinator** Clint Arizmendi BA, MEd, PhD (to Dec) **Clinical Project Leader**

Mary Ellen Harrod BA, Dip Arts (EH1), M Prelim, PhD

Project Coordinator

Linda Garton RN, Grad Cert Adv Prac, Sex Hlth

Senior Research Officer Amalie Dyda BHlthSci, MAE **Project Officer** Belinda Ford BSc, MPH Administrative Assistants Andrew Nakhla BComm, LLB Lucy Watchirs-Smith

BIOSTATISTICS AND DATABASES PROGRAM **Head and Professor**

Matthew Law MA, MSc, PhD **Associate Professor**

John Murray BSc(Hons), MSc, PhD (part time)

Senior Lecturer

Janaki Amin BSc(Hons), MPH(Hons), PhD Stephen Kerr BPharm(Hons), MIPH, PhD (based at HIV-NAT, Thailand)

Kathy Petoumenos BSc, MA, MPH(Hons), PhD (from July) David Regan BA, BSc(Hons), PhD Handan Wand MA, MSc, PhD Jialun Zhou BMed, MPH, PhD (to November)

Lecturers

Azar Kariminia BSc, MSc, PhD Kathy Petoumenos BSc, MA, MPH(Hons), PhD (to June)

Associate Lecturer

Ben Hui BE(computer engineering), MBiomedE

Research Associates Igor Korostil MSc

Nicholas Tothill BA, MSc, PhD (from April)

Statisticians

Heather Gidding BAppSc, Grad Dip Epid Biostats, MAppEpid, MPHAA Paul Fahey BSc, MMedStat (to November)

Awachana Jiamsakul BSc, MS Hamish McManus BEcon, BActS, MBIOS

Rebecca Oyompito BSc, Grad Dip Med Stat (to May) Stephen Wright BMath, MAppStat

Computer Systems Officers Noorul Absar BTech, Grad Dip(Inf Sc), MComp(SW Eng)

Rossitza Chevkenova BSc

Program Co-ordinator Courtney Bendall DipBus

Administrative Assistant Supreet Mehik B Homoeop Med Surg

HIV EPIDEMIOLOGY AND PREVENTION PROGRAM

Head, Professor and NHMRC Principal **Research Fellow** Andrew Grulich MBBS, MSc, PhD,

FAFPHM **Associate Professor** Garrett Prestage BA, PhD, JP

Senior Lecturers (Fengyi) Jeff Jin MB, MPH, PhD (Isobel) Mary Poynten MBBS, DCH, MPH (Hon), PhD

David J Templeton MBChB, DipVen, MForensMed, PhD, MACLM, MFFLM, FAChSHM

Irvna Zablotska-Manos PhD, MD, MPH **Associate Lecturers**

Ben Bavinton BA (Hon), MPH

Ian Down MPH

Michelle McKechnie BMedSci (Hon), PhD

Research Assistants Brian Acraman

Patrick McGrath BA, Dip Ed, Grad Dip Matthew O'Dwver BLibStud, MPH (Hons)

(from April) **Project Officer**

Jack Bradley

Designer

Steve Frendo Dip Eng (Elec), Design Cert (to Nov)

Program Coordinator

Anna Checkley BA (Hons) (from June) **Administrative Assistant**

Ali Ayoub (to May)

IMMUNOVIROLOGY AND PATHOGENESIS PROGRAM

Professor and Head

Anthony Kelleher BSc(Hons), MB BS(Hons), PhD, FRACP, FRCPA Senior Lecturer and NHMRC CDA

Fellow Stuart Turville BSc (Hons) PhD Lecturers

Linda Gelgor PhD, MSc Kersten Koelsch MBBS, MD **Clinical Project Co-ordinator**

Patricia Grey BA, Post Grad Dip App Sci, CNS, Dip (Counselling)

Research Assistants

Anupriya Aggarwal PhD Michelle Bailey BSc(Hons) Chantelle Hood PhD

Susanna Ip BSc Chansavath Phetsouphanh BSc, MSc

Yin Xu MSc (Research), MSc **Data Administrator**

Ansari Shaik BA, MBA Administrative assistants

Tracey Barrett (from April) Lucy Watchirs-Smith BA, MPH (to April)

IUSTICE HEALTH RESEARCH PROGRAM

Head and Professor

Tony Butler MSc (Quant methods) MSc (IT) PhD DipAppEpi

Research Assistant

Michael Doyle Grad Dip (Indig H Promotion)

PUBLIC HEALTH INTERVENTIONS RESEARCH GROUP

Head and Professor of Epidemiology John Kaldor PhD

Associate Professor

Andrew Vallely MBBS, MRCP, MSC, DTMH, PhD

Senior Lecturer

Bette Liu MBBS(Hons) MPH(Hons) DPhil Lecturers

Louise Causer MB BS, MSc, DTM&H Joanne Micallef BMedSc (Hons), PhD Bradley Mathers MSD, MBChB, BHB

Program Manager

Skye McGregor BA, BSc, MA

SURVEILLANCE AND EVALUATION PROGRAM FOR PUBLIC HEALTH

Head and Associate Professor

David Wilson BSc, BInfTech, BAppSc(Hons), GradCert(Biostats), PhD Lecturers

Richard Gray BSc(Hons), PhD Lei Zhang BSc(Adv Hons), MSc, PhD, MPH

Visiting Academic

Xun Zhuang (from February)

Post Doctoral Research Fellows/ **Associate Lecturers**

Alexander Hoare BSc(Hons), PhD Josephine Reyes BS, MS, PhD

Research Associate

Cliff Kerr BSc(Hons), LMusA, DipArts, PhD

HIV Surveillance Coordinator

Ann McDonald BSc, MPH

Senior Surveillance Officer

Carleigh Cowling BNurs, PGDipMid (from April)

Surveillance Officer

Melanie Middleton BMedSci, MPH Tarana Lucky MBBS, MPH

Research Assistants

Shamin Kinathil BE(Hons), BSc Keira Robinson BSc(Hons), MSc Andrew Craig BSc (from April) Gordana Popovic BEd, BSc(Hons) Elizabeth Mlambo (from March) Md. Fakhrul Islam BSc(Hons), MSc(Stat), MIS, MBiostat

Jianyun (Fred) Wu BSc MActSt, PDipStats Charisse Farr

Program Coordinator

Megan Brennan

SEXUAL HEALTH PROGRAM

Head and Professor of Sexual Health Basil Donovan MB BS, DipVen (Lond), MD, FAFPHM, FRCPI, FAChSHM

Senior Lecturer and NHMRC Postdoctoral Fellow

Rebecca Guy BAppSc, MAppEpid, PhD Lecturers

Hammad Ali BSc, MBBS, MPH Damian Conway, MB BCh MMed(STD/ HIV) FAChSHM MRCGP DRCOG DFF Fraser Drummond MB ChB, MRCA, DA (UK) (to June)

Senior Research Officer

Kirsty Smith RN, Grad Dip Education, MPH

Project Co-ordinators

Lisa Edwards BNurs MPH

Rebecca Lorch DipAdultNurs BSc(Hons)

Research Assistants

Larissa Lewis BA

Muhammad Shahid Jamil MBBS MPH MHM

Denton Challander BA, BMT

Visiting Research Fellow Hsin-Chun (Grace) Lee MD

Program Coordinator

Lucy Watchirs Smith BA, MPH (from April) _____

THERAPEUTIC AND VACCINE **RESEARCH PROGRAM**

Head and Professor

Sean Emery BSc(Hons), PhD

Senior Lecturer

Mark Boyd BA, BM, BS, DCTM&H, MHID, MD, FRACP

Sarah Pett BSc(Hons), MB BS(Hons), DTM&H, MRCP (UK), FRACP, PHD

Lecturers

Helen Byakwaga MB ChB,PHD Dianne Carey BPharm, MPH, PHD

Rebekah Puls BSc(Hons), PhD **Senior Clinical Project Co-ordinators**

Cate Carey RN, BA, MAppSc(Research) Allison Humphries BSc, MSc (Med), Grad Dip PH

David Courtney-Rodgers

Enmoore Lin BA/BSc (Hons) PhD **Clinical Project Co-ordinators**

Maria Arriaga BSc, MScMed (STD/HIV)

Carlo Dazo BMedSc (Hons) Hila Haskelberg BSc

Simone Jacoby BSc, Dip Nutrition, Adv Dip Bot Med

Nisha Seneviratne BMedSc, BBus Megan Evans BappSc HIM

Natalie Espinosa BS (Biomed), MA.AppSc (Ex&Sc)

Jessica Taylor (BNurs) Sally Hough BAppSci, Postgrad Cert PM David Silk BSc (Hons)

Elise Tu BSc (Hons), PhD Anna Donaldson MSC

Joe Levitt AAS

Program Manager

Cathy O'Connell Dip Bus

Data Managers

Kymme Courtney-Vega Dip Sp Th Wendy Lee

Jose Aurelio Vieira Vulcao BA

Administrative Assistants

Maja Berilazic BEd Rosemary Robson

Alexis Shambrook Lara Cassar

VIRAL HEPATITIS **EPIDEMIOLOGY AND** PREVENTION PROGRAM

Professor and Head Lisa Maher PhD

Senior Lecturer

Libby Topp BSc(Psychol)(Hons), PhD

Associate Lecturer

Sarah Wright BSc, PGDip Sci, PhD (Physiology) (from October)

Lecturer

Mihaela Ivan MD MSc FAFPHM (from July)

Post Doctoral Research Fellows

Peter Higgs PhD, MA, BSW Joanne Kimber BSc, PhD Anna Olsen PhD

Will Small PhD

Study Co-ordinators

Rachel Deacon BSc, PhD (to Sept) Jenny Iversen BAppSc

Bethany White BA (Psych), MPH **Research Assistants**

Anna Bates BA, MPH

Sammy Chow BSc (Hons) (from May) Jarliene Enriquez

Mofizul Islam BSc(Hons), MSc(Med), **MPhil**

Ju Park BSc(Hons) (to July) Anh Pham

Len Liao

Program Coordinator

Rachel McCleave BA(Hons), BEd(Prim) Fiona Campbell (April-Oct)

VIRAL HEPATITIS CLINICAL RESEARCH PROGRAM

Head and Professor

Greg Dore MB BS, BSc, PhD, FRACP, MPH **Senior Lecturers**

Gail Matthews MBChB, MRCP(UK), FRACP PhD

Tanya Applegate BSc (Hons), PhD Jason Grebely BSc, PhD

Viral Hepatitis Clinical Research Fellow Rachel Ali BMBS, BMedSci (Hons),

MRCP(Lon) (to Dec) Lecturer

Marianne Jauncey BMed, Grad Dip App Epi, MPH (Hons), FAFPHM (to Jan)

Clinical Trials Manager Pip Marks BSc, MPH (Hons)

Clinical Project Co-ordinators Alexa Gillman BSc(Hons)(to January) Michelle Micallef Phd. BBMedSci (Hons) (from Feb)

John J Morrison, BSc (Hons), PhD, Cert Health Econ, Grad Cert Pharmacoecon, CCRA, CCRT (from August) Marianne Byrne B.Sci (Hons); Grad Cert

ClinTrialsMan (from August) Ineke Shaw BSc, Grad Cert BioStats

Barbara Yeung RN, BHSc (Nursing), MPH Senior Research Officer Francois Lamoury EICnam (Biology) (from

Research Assistants

Amanda Erratt ADip (Med Record Admin) Sofia Bartlett BSc (Hons) (from Feb)

Data Manager

Sharmila Siriragavan BMedSci (from Feb)

Labkey Database Developer Trent Schafer BA IT (from May)

Administrative Assistants Jennifer Moore (to Dec) Sarah Field (Feb to Aug)

Deb Payne (Aug to Dec) Shelley Tinworth (from Feb)

OPERATIONS GROUP

Operations Manager

Daren Draganic BSc(Hons)

Business Manager Annie Tung MPA

Finance Managers

Gina Lam BA(Hons), EMBA Jence Oesman

Selina Cheng BA, MComm, CPA Rachael Blackwell BA(Hons), ACMA

Finance Administrator Teresa Wong BAcc, CPA

Librarian Coralie Kronenberg BA, Dip IM Lib, AALIA

IT Specialist

Sergio Sandler MSc, EE, Dip Ed **Computer Systems Officers**

Lisa Howard Dip IT Charles Tran BCompSc

Manager, Human Relations Brigette Sharp BA(Hons), MAppSc

Manager, Administration Yvette Toole

Administrative Officers

Ian Brodie BEc, Grad Dip Ed, Ass Dip Hlth

Morgan Stewart BA(Hons) Ran He

Receptionist Rata Joseph

RESEARCHERS AFFILIATED TO NCHECR

Visiting Professor

Jennifer Hoy MB BS, Grad Dip Epi Bio, FRACP

Senior Visiting Fellow Philip Cunningham BAppSc(Med) Chief of Operations, St Vincent's Centre for Applied Medical Research St Vincent's Hospital, Sydney

Visiting Fellows

Bruce Brew MB BS(Hons), MD, FRACP Professor of Medicine St Vincent's Hospital, Sydney

Nick Crofts MB BS, MPH, FAFPHM Professor and Director Turning Point Alcohol and Drug Centre, Melbourne

Hsin-Chun Lee MD Assistant Professor and Infectious Disease

Physician. College of Medicine, National Cheng Kung University, Taiwan

Cathy Pell MB BS, MM FAChSM Sexual Health Physician Taylor Square Private Clinic, Sydney

Phillip Read BSc, MBBS, MRCP, DipGUM. DFFP, DipHIV, MPH, FAChSHM Post-graduate Fellow, Sydney Sexual Health Centre, Sydney Hospital

Don Smith MB ChB, MD Associate Professor and Head of Research Development Albion Street Centre, Sydney

Mark Sullivan BSc **Chief Operating Officer** VivaGel™ Microbicide Development Medicines Development Limited,

Melbourne

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

Conjoint Associate Professor

Richard Hillman MD FRCP FAChSHM Associate Professor and Director HIV & STI Postgraduate Program, University of Sydney

Honorary Senior Lecturer

Dr. Alex Thompson, MBBS, PhD, FRACP Head of Hepatology Research St. Vincent's Hospital, Melbourne

Adjunct Lecturers

Phillip Read BSc, MBBS, MRCP, DipGUM, DFFP, DipHIV, MPH, FAChSHM Post-graduate Fellow, Sydney Sexual Health Centre, Sydney Hospital

Kathy Triffitt BA, Grad Dip, Ph D Manager, Health Promotion Positive Life NSW

DOCTORATES AWARDED

Helen Byakwaga

Antiretroviral therapy and the management of HIV/AIDS Supervisors: Sean Emery; David Cooper; Mark Boyd

Dianne Carey

Optimising therapeutic outcomes in HIVinfected subjects

Supervisors: Sean Emery; David Cooper

Heather Gidding

Hepatitis C-related morbidity and treatment in Australia Supervisors: Matthew Law; Greg Dore; Janaki Amin

Sarah Pett

Aspects of HIV-1 treatment: An exploration of the positive and negative physiological aspects of host-directed treatments for HIV-1 infection Supervisors: David Cooper; Tony Kelleher; Sean Emery

Sanjay Swaminathan

Role of miRNAs in HIV-1 pathogenesis Supervisor: Tony Kelleher Elizabeth Sullivan (University of New South Wales), MD (Research) Caesarean section in Australia: National monitoring and classification Co-supervisor: John Kaldor

PHD CANDIDATES AT THE KIRBY INSTITUTE

Amit C Achhra

Bio-markers and other predictors of AIDS and non-AIDS diseases in HIV observational (cohort) studies Supervisors David Cooper; Janaki Amin; Matthew Law

Maryam Alavi

Barriers to the assessment and treatment of hepatitis C virus infection in injecting drug users

Supervisors: Greg Dore; Jason Grebely Hammad Ali

Estimation of the incidence and trends in Chlamydia infection in Australia Supervisors: Rebecca Guy; Basil Donovan; David Wilson

Jonathan Anderson

The role of economic evaluation in decision-making about HIV Supervisors: David Cooper; Sean Emery; Kathy Petoumenos

Maria Arriaga

Aspects of Human Immunodeficiency Virus (HIV) management Supervisors: Sarah Pett; Mark Boyd

Anchalee Avihingsanon

Non AIDS complications and treatment optimizations for HIV-1 infected Thai adult patients with and without TB or Hepatitis Supervisor: Gail Matthews

Ben Bavinton

HIV viral load and transmission in serodiscordant male homosexual couples. Supervisors: Andrew Grulich; Garrett

PrestLouise Causer

STI rapid point-of care tests Supervisors: John Kaldor; Rebecca Guy

Eric Pui Fung Chow

Understanding the past, forecasting the future - investigating the epidemiology of HIV/AIDS in China

Supervisors: Lei Zhang; David Wilson Paul Clark

Genomics to predict the complications of chronic hepatitis C and its treatment Supervisors: Greg Dore; Alex Thompson (St Vincent's Hospital, Melbourne); Gail Matthews

Damian Conway

Novel approaches to HIV testing for men who have sex with men. Supervisors: Rebecca Guy; Martin Holt

(NCHSR); Andrew Grulich

Laura Cook

Characterisation of T regulatory cells Supervisors: Tony Kelleher; Nabila Seddiki

Ian Down

Meanings of HIV and 'safe-sex' among a sample of recently diagnosed gay men in

Supervisors: Garrett Prestage; Jeanne Ellard

Fraser Drummond

Chemoprophylaxis for syphilis in MSM - a trial of systemic chemoprophylaxis for syphilis in HIV positive men who have sex with men

Supervisors: Basil Donovan; John Kaldor; Rebecca Guy; Jeff Klausner

Simon Graham

An intervention to improve sexually transmitted infection management in selected Aboriginal Community Controlled Health Services in New South Wales Supervisors: Basil Donovan; Rebecca Guy; Handan Wand

Behzad Hajarizadeh

Diagnosis and natural history of acute hepatitis C virus infection Supervisors: Greg Dore; Jason Grebely; Tanya Applegate

Hila Haskelberg

Antiretroviral toxicity in HIV-infected

Supervisors: Sean Emery; Andrew Carr (St Vincent's Hospital); Janaki Amin

William Hey-Cunningham

Delineation of the latent HIV reservoir with subpopulations of Memory CD4 T

Supervisors: Tony Kelleher; Kersten Koelsch; John Zaunders (SVH)

Kelly Jean Heymer

Using modelling to evaluate drivers and predict trajectories of HIV and STI epidemics in South East Asia and Australasia

Supervisors: David Wilson; Philip O'Neil (University of Nottingham)

Denise Chee Hsu

Using novel biomarkers to define the role of TB specific effector T cell and TB specific regulatory T cell in patients with Mycobacterium tuberculosis (TB) and HIV co- infection

Supervisors: David Cooper; Jintanat Ananworanich (HIVNAT); Tony Kelleher Tina Iemma

The Role of Dynamin-II in HIV Pathogenesis

Supervisors: Stuart Turville; Phillip Robinson (University of Sydney)

Mofizul Islam

The impact of targeted primary health care on injecting drug users' health Co-supervisor: Libby Topp

Jennifer Iversen

Enhanced sentinel sero-surveillance

among people who inject drugs in Australia

Supervisors: Lisa Maher; Libby Topp; Handan Wand

Brendan Jacka

Viral epidemiology of multiple Hep C infections in international high risk populations

Supervisors: Tanya Applegate; Jason Grebely; Greg Dore

James Jansson

Mapping HIV outcomes: geographical and clinical forecasts of people living with HIV in Australia

Supervisors: David Wilson; Richard Gray Amy Kwon

Mathematical modelling of viral epidemics among injecting drug users in the Asia-Pacific region

Supervisors: David Wilson; Rosie Thein; Cliff Kerr

Linh-Ve Le

HIV incidence and predictors of sexual and drug injecting behavioural risk among female sex workers/men who have sex with men in Vietnam

Supervisors: John Kaldor; Lisa Maher; Keith Sabin (WHO, Hanoi)

Scott Ledger

The effects of anti-attachment and fusion inhibitor gene-therapies in the protection of HIV susceptible cells

Supervisors: Geoff Symonds; John Murray

Dorothy Machalek

The natural history of anal human papillomavirus infection and anal cellular abnormalities in mature aged homosexual

Supervisors: Andrew Grulich; Jeff Jin; Mary Poynten

Kylie-Ann Mallitt

Geospatial Models of HIV Transmission Supervisors: Handan Wand; David Wilson

Allison Martin (Humphries)

Toxicities associated with antiretroviral treatment of HIV-1 antiretroviral treatment effects on HIV Infection Supervisors: Sean Emery; Janaki Amin; Andrew Carr (St Vincent's Hospital) Samantha McAllery (University of Sydney)

Proteomics of True de novo HIV in the Context of Productive Infection Supervisor: Stuart Turville

Elizabeth Mlambo

patients

Developing enhanced surveillance and evaluating available data for monitoring HIV among culturally and linguistically diverse (CALD) populations living in Australia.

Supervisors: David Wilson; Rebecca Guy Kristin McBride

Studies of the latent reservoirs of HIV-1 Supervisors: David Cooper; Tony Kelleher;

Kersten Koelsch **Hamish McManus**

Evaluation of survival in HIV-positive

Supervisors: Tony Kelleher; Kazuo Suzuki

(St. Vincents Hospital)

Supervisors: Kathy Petoumenos; Matthew

Defining the role of RNAi transcriptional

Mee Ling Munier

Catalina Mendez

silencing of HIV-1

The role of HIV-specific CD4+ T-cells at primary infection

Supervisors: Tony Kelleher; Bill Sewell (Garvan Institute); John Zaunders (St Vincent's Hospital)

David Muscatello

Novel methods for influenza surveillance Supervisors: Raina McIntyre (SPHCM); Janaki Amin

Rebecca Akao Ovomopito

HIV-1 drug resistance in treatment-naïve and combination antiretroviral therapy exposed patients in Asia

Supervisors: Matthew Law; Tony Kelleher; Suzanne Polis

Chansavath Phetsouphanh

Characterisation of CD4+ Antigen specific T cells to HIV

Supervisors: Tony Kelleher; Nabila Seddiki **Suzanne Polis**

Adherence to hepatitis B antiviral therapies

Supervisors: Lisa Maher; Armany Zekry (St George Hospital)

Karen Schneider

Mathematical modelling of HIV epidemiology, treatment and drugresistance in Thailand Supervisors: David Wilson; Matthew Law; Basil Donovan

Ivy Shih (University of Sydney) Characterization of Human Immunodeficiency Virus (HIV) spread between physiologically relevant cell targets of the immune system Supervisor: Stuart Turville; N Nasr (University of Sydney)

Sowbhagya Somanadhan

Influence of civil society on HIV policies and services in India and the participation of people living with HIV/AIDS Supervisors: Lisa Maher; Anthony Zwi (UNSW)

Dam Anh Tran

Cost effectiveness of antiretroviral treatment in Vietnam Supervisors: Lei Zhang; Anthony Shakeshaft (NDARC); David Wilson; Chris Doran (University of Newcastle)

Winnie Wing Yin Tong

Measurement of immune responses to clinically significant viral pathogens in immunocompromised adults Supervisors: Andrew Carr (St Vincent's Hospital); Tony Kelleher Edward (Ned) Waters

The analysis, ecology and implications of HPV variants in HPV related cancers. Supervisors: David Regan; David Philp (SPHCM); Andrew Grulich; Anthony

Smith

Chris Weatherall

Characterisation of B-lymphocyte responses in primary HIV infectionneutralising antibodies and immune tolerance

Supervisors: Tony Kelleher; David Cooper

Bethany White

Hepatitis C vaccine preparedness Supervisors: Lisa Maher; Greg Dore

Stephen Wright

Antiretroviral therapies and immunological outcomes in HIV-positive patients

Supervisors: Kathy Petoumenos; Matthew Law

MASTERS STUDENTS AT THE KIRBY INSTITUTE

Anna Charisse Farr

Evaluation of HIV in the Philippines (Masters by Research) Supervisor: David Wilson

Belinda Hengel

What works? Improving Primary Health Care Centre access and STI amongst young people in remote Aboriginal and Torres Strait Islander communities in Australia Supervisors: John Kaldor; Rebecca Guy; Lisa Maher

Rebecca Lorch

Role of the Practice Nurse in chlamydia testing in general practice Supervisors: Rebecca Guy; Jane Hocking; Meredith Temple-Smith (both University of Melbourne)

Tarana Lucky Masters by Research Quantitative techniques to improve monitoring and evaluation of HIV epidemics and transfusion-transmissible infections in Australia

Supervisors: David Wilson; Handan Wand Skye McGregor M. Phil

Capacity building for health research in developing countries Supervisors: John Kaldor; Klara

Henderson (Policy Cures) Elizabeth Mlambo

Developing enhanced surveillance and evaluating available data for monitoring HIV among culturally and linguistically diverse (CALD) populations living in Australia.

Supervisors: David Wilson; Rebecca Guy **Quang Duy Pham**

Modelling the emergence of drug-resistant strains of HIV in Viet Nam

Supervisors: Lei Zhang; David Wilson Chansavath Phetsouphanh Masters by Research

Re-characterising Antigen specific CD4+ T Cells to HIV

Supervisors: Tony Kelleher; Nabila Seddiki Lucia Romani M. Phil

Factors associated with scabies in a highly endemic population

Supervisors: John Kaldor; Andrew Steer (Murdoch Childrens Research Institute)

Bronwyn Silver Masters by Research
Reproductive health at risk: exploring the interface between sexual and reproductive health in Indigenous women in remote communities

Supervisors: John Kaldor; Rebecca Guy; Alice Rumbold (Menzies School of Health Research)

James Ward M.Phil

Sexual health and risk factors among young Aboriginal people Supervisors: John Kaldor; Basil Donovan

HONOURS STUDENTS AT THE KIRBY INSTITUTE

Steven Lim

siRNA induced Transcriptional gene silencing of HIV-1

Supervisors: Tony Kelleher; Kazuo Suzuki **Daniel Murray**

Mapping miRNA changes in the monocytes of HIV-1 infected patients Supervisors: Tony Kelleher; Sanjay Swaminathan

SUPERVISION OF NON-KIRBY INSTITUTE STUDENTS

Leon Pierre Botes (The University of Sydney) PhD Candidate
Validation of the acceptability and reliability of self collected anal swabs used for cytological screening, to detect anal squamous intra-epithelial lesions in HIV-positive men who have sex with men Supervisor: Richard Hillman; Jeff Jin Jacqueline Flynn (Monash University)
The stimulation and maintenance of T cell responses in acute HCV infection
Supervisors: Rose Ffrench (Monash University); Greg Dore

Danielle Horyniak (Monash University) Improving health and reducing harm among young people who inject drugs Co-supervisor: Peter Higgs

Robert Kemp (University of Queensland) Development of the Needle and Syringe Program in Queensland Co-supervisor: Lisa Maher

Co-supervisor: Lisa Maher

Paul Lam (UNSW Faculty of Medicine)

HIV DNA dynamics in patients switching to
a raltegravir-containing regimen

Supervisors: Kersten Koelsch; Tony Kelleher

Stephen Lambert (University of Oueensland)

Chlamydia in the Australian Defence Forces Supervisors: Scott Kitchener (University of Queensland); Basil Donovan **Gregory Londish** (on leave of absence) The Impact of a Male Circumcision Intervention on HIV Epidemics

Supervisors: John Murray; Matthew Law

Loay Othman (La Trobe University), PhD

Candidate

HIV and stigma in the United Arab Emirates Supervisor: Garrett Prestage

Alisa Pedrana (Burnet/ Monash University)

Understanding HIV risk among men who have sex with men (MSM) in Australia Primary supervisor: Mark Stoove, co

supervisors: Margaret Hellard; Rebecca Guy **Tim Read** (Melbourne University), PhD Candidate

Sexually transmitted viruses in men having sex with men

Supervisors: Christopher Fairley; Andrew Grulich

Evelien Rouwenhorst (Vrije Universiteit, Amsterdam) PhD Candidate Gay men's use of condoms with casual partners depends on the extent of their

Supervisor: Garrett Prestage

prior acquaintance

Rachel Sacks-Davis (Monash University) Hepatitis C virus transmission and

progression in cohorts of people who inject drugs

Supervisors: Margaret Hellard and Campbell Aitken (Burnet Institute); Jason Grebely

Sowbhagya Somanadhan

Influence of civil society on HIV policies and services in India and the participation of people living with HIV/AIDS Supervisor: Lisa Maher

Huachun Zou (University of Melbourne), PhD Candidate

HPV infection in young men who have sex with men

Supervisors: Marcus Chen (Melbourne); Andrew Grulich

Karen Hawke (University of South Australia)

Epidemiology of HIV resistance and subtypes in South Australia Co-supervisor: John Kaldor

BACHELOR OF MEDICINE, INDEPENDENT LEARNING PROJECT

Imesha Indikadahena

Classification and prevalence of mental health disorders and attempted suicide among injecting drug user cases and age and gender matched controls attending general practice

Kirby supervisor: Jo Kimber

Natasha Karunaratne (UNSW)

The cost of using home-based collection kits for chlamydia re-testing, compared with returning to the clinic Kirby supervisors: Rebecca Guy; Kirsty

Smith

NATIONAL

Association for Prevention and Harm Reduction Programs (ANEX), Melbourne Australasian Chapter of Sexual Health Medicine, Sydney

Australasian Professional Society on Alcohol and other drugs (APSAD) Australasian Society for HIV Medicine, Sydney

Sydney
Australasian Society of Clinical
Immunology and Allergy (ASCIA) Primary
Immunodeficiency Register, Sydney
Australia and New Zealand Cardiothoracic
Transplant Registry, Sydney
Australia and New Zealand Dialysis and
Transplant Registry (ANZDATA), Adelaide
Australia and New Zealand Liver
Transplant Registry, Brisbane
Australian Agency for International
Development (AusAID), Canberra
Australian Centre for Hepatitis and HIV
Virology Research (ACH²), UNSW, Sydney
Australian Federation of AIDS
Organisations, Sydney

Australian Federation of AIDS
Organisations, Sydney
Australian Gonococcal Surveillance
Program, Sydney

Australian Government Department of Health and Ageing, Canberra Australian Injecting and Illicit Drug Users League (AIVL), Canberra

Australian Institute of Health and Welfare, Canberra Australian Liver Association, Sydney Australian Red Cross Blood Service,

Sydney Australian Research Centre in Sex, Health and Society, La Trobe University,

Melbourne Communicable Diseases Network Australia, Canberra

Federal Department of Health and Ageing, Canberra

Canberra
Hepatitis Australia, Canberra
Immunovirology Research Network
(IVRN), UNSW, Sydney
National Aboriginal Community
Controlled Health Organisation, Canberra
National Association of People Living with
HIV/AIDS, Sydney
National Drug Research Institute, Curtin

University of Technology, Perth National Centre for Epidemiology and Population Health, Australian National University, Canberra National Centre for Immunisation

Research and Surveillance of Vaccine Preventable Diseases, Sydney National Centre in HIV Social Research, UNSW, Sydney

National Drug and Alcohol Research Centre, UNSW, Sydney

National Drug Research Institute, Curtin University of Technology, Perth National Serology Reference Laboratory,

Australia, Melbourne National Trachoma Surveillance Reference Group

Office of Aboriginal and Torres Strait Islander Health (OATSIH), Canberra Phase Forward Pty Ltd, Sydney Royal Australian and New Zealand College of Psychiatrists

Therapeutic Goods Administration, Canberra

AUSTRALIAN CAPITAL TERRITORY

ACT Corrective Services, Canberra ACT Health AIDS Action Council of the ACT

Canberra Sexual Health Centre, Canberra Hospital Canberra Sexual Health Clinic Communicable Disease Control Program, ACT Health, Canberra

Directions ACT, Canberra
Interchange General Practice, Canberra
John Curtin School of Medical Research,
Australian National University, Canberra
National Centre in Epidemiology and
Population Health, Australian National

University, Canberra Sexual Health and Family Planning ACT The Canberra Hospital, Canberra Winnunga Nimmityjah Aboriginal Health Services, Canberra

NEW SOUTH WALES

Aboriginal Health and Medical Research Council of NSW Aboriginal Medical Service Co-op Ltd,

Aboriginal Medical Service Co-op Ltd Sydney Aboriginal Medical Service Western

Sydney, Mount Druitt Village
AIDS Council of NSW (ACON), Sydney,
Lismore, Newcastle, Penrith, Port
Macquarie and Wollongong
AIDS Research Initiative, Sydney
Albion Street Centre, Sydney
Albury Community Health Centre, Albury
Alcohol and Drug Foundation New South
Wales

Area Health Services, NSW Health, Sydney

Asquith Medical Centre, Asquith Armajun Aboriginal Health Service Incorporated, Inverell

Bigge Park Medical Centre, Sydney Blacktown Needle and Syringe Program Services, Sydney

Blue Mountains Sexual Health Clinic, Katoomba

Burwood Road General Practice, Sydney Centenary Institute, Sydney Central Access Service, Sydney (formerly

St George Hospital Needle and Syringe Program)

Central Coast Harm Reduction Service, Gosford, Long Jetty and Woy Woy Centre for Addiction Medicine, Westmead Hospital

Centre for Health Initiatives, University of Wollongong

Centre for Health Research in Criminal Justice, Justice Health, NSW Health Department, Sydney

Centre for Infection and Inflammation Research, School of Medical Sciences, UNSW

Centre for Immunology, St Vincent's Hospital, Sydney

Centre for Learning and Change, University of Technology, Sydney Centre for Values, Ethics and the Law in Medicine, University of Sydney Communicable Diseases Branch, NSW

Health Department, Sydney Coffs Harbour Sexual Health Clinic Concord Hospital, Sydney Cowra Medical Associates, Cowra Discipline of Addiction Medicine, University of Sydney, Sydney Dr Doong's Surgery, Burwood Douglass Hanly Moir Pathology Dubbo Sexual Health Centre, Dubbo Durri Aboriginal Corporation Medical Service, Kempsey East Sydney Doctors, Sydney

Faculty of Science, University of Sydney First Step Program, Port Kembla and Nowra Galambila Aboriginal Health Service Inc, Coffs Harbour

Garvan Institute of Medical Research. Sydney

Gateway Opioid Treatment Service Clinic, Nepean Hospital

General Medical Practice. Coffs Harbour Grafton Sexual Health Clinic, Grafton Greater Southern Area Health Service Harm Reduction Program, Liverpool Health ConneXions, Sydney Hepatitis C Clinic, Tamworth Base Hospital Hepatitis NSW (formerly Hepatitis C Council of NSW), Sydney Holden Street Clinic, Gosford Holdsworth House Medical Practice,

Hunter Harm Reduction Services, Newcastle Hunter New England Sexual Health

Sydney and Byron Bay

Service **Hunter Pharmacotherapy Services**

Illawarra Aboriginal Medical Service Aboriginal Corporation, Wollongong Illawarra Sexual Health, Port Kembla John Hunter Hospital, Newcastle Justice Health, NSW Health Department, Sydney

K2 Health Service, Sydney Kirketon Road Centre, Sydney Kite Street Community Health Centre,

Lismore Base Hospital, Lismore Lismore/ Tweed Heads Sexual Health & AIDS Services (also known as Sexual Health and Infectious Diseases Service (SHAIDS), Lismore)

Liverpool Hospital, Sydney Liverpool Sexual Health Clinic, Sydney Manly Sexual Health Clinic Multicultural HIV/AIDS and Hepatitis C

Service, Sydney Nepean Hospital, Sydney

Nepean Sexual Health Clinic North Coast Area Health Service, Harm Reduction Services

North Coast Area Health Service, Lismore North Sydney Medical Practice, North Sydney

Northern Sydney Central Coast Area Health Service, NSW Health Department, Sydney

NSW Centre for Health Record Linkage, Sydney

NSW Health Department, Sydney NSW Health Department, AIDS and Infectious Disease Branch, Sydney NSW Health Department, Mental health and Drug and Alcohol Office, Sydney NSW State Reference Laboratory for HIV/ AIDS, St Vincent's Hospital, Sydney NSW Users and AIDS Association (NUAA), Sydney

Orange Sexual Health Clinic Parramatta Needle and Syringe Program Services, Sydney

Parramatta Sexual Health Clinic, Sydney Perinatal and Reproductive Epidemiology Research Unit, incorporating the National Perinatal Statistics Unit, UNSW Port Kembla Sexual Health Clinic.

Warrawong Positive Heterosexuals Positive Life NSW

Prince of Wales Hospital, Sydney Rankin Court Treatment Centre, Sydney Resource and Education Program for Injecting Drug Users (REPIDU), Sydney Rotary Club of Drummovne, Sydney Royal North Shore Hospital, Sydney Royal Prince Alfred Hospital, Sydney Royal Prince Alfred Hospital Clinic 36

Outreach Clinic, Sydney Royal Prince Alfred Hospital, Dept of Immunology Sydney

Royal Prince Alfred Hospital (RPA) Drug Health Services, Sydney

Royal Prince Alfred Hospital Regent House Outreach Clinic, Sydney Royal Prince Alfred Hospital (RPA) Sexual

Health Clinic, Sydney Sax Institute, Sydney

School of Biotechnology and Biomolecular Sciences, UNSW, Sydney

School of Mathematics, UNSW, Sydney School of Medical Sciences, UNSW, Sydney

School of Public Health, University of Sydney

School of Public Health and Community Medicine, UNSW, Sydney

Sex Workers Outreach Project (SWOP), Sydney

Sexually Transmitted Infections Research Centre, Westmead Hospital, Sydney South Court Primary Care Needle and Syringe Program, Sydney South Eastern Area Laboratory Services

(SEALS), Prince of Wales Hospital South Eastern Sydney and Illawarra Area Health Service, NSW Health Department, Sydney

South West Area Health Service, Eastern Division

South West Area Health Service, Western Division

SpeeDx Pty Ltd, Sydney St George Hospital, Sydney

St George Hospital Short Street Sexual Health Clinic

St Leonards Medical Centre St Vincent's Hospital, Sydney St Vincent's Centre for Applied Medical

St Vincent's Medical Imaging, Sydney Sydney Children's Hospital, Randwick Sydney Medically Supervised Injecting Centre, Sydney

Sydney Sexual Health Centre, Sydney Sydney South Illawarra Health Service Sydney South West Area Health Service, Sydney

Sydney West Area Health Service, Sydney Sydney West Area Health Service HIV/ Hepatitis C Prevention Service, Auburn, Blacktown, Merrylands, Mt Druitt and Parramatta

Sydney West Area Health Service Clinical Sexual Health Services SydPath, Sydney

Tamworth Sexual Health Service, Tamworth

Taree Manning Clinic Taylor Square Private Clinic, Sydney The Byrne Surgery, Sydney The Cancer Council NSW, Sydney Tresillian Family Care Centres. Canterbury, NSW

University of New South Wales - School of Biotechnology and Biomolecular Sciences, Sydney

University of New South Wales - School of Medial Sciences, Sydney University of New South Wales – School of Psychology

University of Sydney – Discipline of Addiction Medicine, Sydney University of Technology – Faculty of Arts and Social Sciences

University of Technology - Faculty of Nursing, Midwifery and Health UNSW Cancer Research Centre, integrated cancer research group

Wagga Wagga Community Health Centre Wellington Aboriginal Corp Health Service, Wellington

Western Sydney Aboriginal Medical Service Mt Druitt

Westmead Hospital, Sydney Westmead Millennium Institute for Medical Research, Sydney Woodlands Clinic, Blue Mountains Anzac Memorial Hospital, Katoomba

NORTHERN TERRITORY

Aboriginal Community Controlled Health Services, Northern Territory Aboriginal Medical Services Alliance Northern Territory, Darwin AIDS/STI Program, Disease Control, Department of Health and Community Services, Darwin Alice Springs Sexual Health Service Clinic 34 Communicable Disease Centre, Royal Darwin Hospital, Darwin Darwin Sexual Health Service Family Planning Northern Territory, Coconut Grove

Menzies School of Health Research.

Northern Territory Sexual Health and BBV

Northern Territory AIDS and Hepatitis C Council, Alice Springs, Darwin and Palmerston

Northern Territory Department of Health and Families

Western Diagnostic Pathology

OUEENSLAND

AIDS Medical Unit, Queensland Health, Brisbane

Apunipima Cape York Health Council, BungalowBiala Alcohol and Drug Services, Brisbane

Biala Alcohol and Drug Treatment Services, Brisbane

Brisbane Sexual Health Clinic Brisbane Sexual Health & HIV Service Cairns Base Hospital

Cairns Base Hospital NSP Services Cairns ATODS NSP Service Cairns Sexual Health Service (also known as the Dolls House Sexual Health Clinic) Clinic 87. Sunshine Coast-Wide Bay Health

Service District, Nambour Communicable Disease Unit, Queensland Health, Brisbane

Gladstone Road Medical Centre, Brisbane Gold Coast Hospital, Southport Gold Coast Sexual Health Clinic, Miami

Goondir Health Service, Dalby **Healthy Communities**

Kobi House, Toowoomba Peel Street ATODS, QEII Hospital, Brisbane Pharmacy Guild of Australia, Queensland Branch

Prince Charles Hospital, Brisbane Princess Alexandra Hospital, Brisbane Princess Alexandra Sexual Health, South Brisbane

Queensland Aboriginal and Islander Health Council, Brisbane Queensland Alcohol and Drug Research and Education Centre Oueensland Health, Brisbane **Queensland Injectors Health Network** (QuIHN), Brisbane, Gold Coast and **Sunshine Coast**

Queensland Positive People Queensland University of Technology, Brisbane

Royal Brisbane and Women's Hospital, Brisbane

Spiritus Positive Directions Sunshine Coast and Cooloola HIV/Sexual Health Service, Nambour Townsville Aboriginal and Islanders Health Services Ltd, Townsville Townsville ATODS NSP Service Townsville Health Services

West Moreton Sexual Health Service, QLD _____

Burnet Institute, Melbourne (formerly

SOUTH AUSTRALIA

Aboriginal Community Controlled Health Services, South Australia Aboriginal Health Council of South Australia, Inc.

Aboriginal Health Council of South Australia, Inc. Adelaide AIDS Council of South Australia (ACSA), Adelaide

Drug and Alcohol Services South Australia (DASSA), Adelaide

Communicable Disease Control Branch, SA Health

Country Health, Adelaide Department of Health Flinders Clinical Trials Pharmacy, Adelaide

Flinders Medical Centre, Adelaide Harm Minimisation Program, Hindmarsh Centre, Adelaide

Infectious Diseases Laboratories, Institute of Medical and Veterinary Science, Adelaide Nunkuwarrin Yunti of South Australia Inc. Adelaide

O'Brien Street Practice, Adelaide Positive Life

Port Adelaide Community Health Service, Port Adelaide

Royal Adelaide Hospital, Adelaide Royal Adelaide Hospital Clinic 275 Sexually Transmitted Diseases (STD) Services, Internal Medicine Service, Royal Adelaide Hospital

Shine SA (Sexual Health Information Networking and Education Inc) South Australian Health Department South Australian Voice for Intravenous Education (SAVIVE) Noarlunga, Norwood,

Parks, Port Adelaide Tullawon Health Service, Yalata University of Adelaide

TASMANIA

Anglicare NSP Services, Glenorchy and Hobart Clarence Community Health Service, Hobart Department of Health and Human Services Tasmania Hobart, Devonport and Launceston Sexual Health Service

Royal Hobart Hospital Salvation Army Launceston, Launceston Tasmanian Council on AIDS, Hepatitis and Related Diseases (TasCAHRD), Hobart

Tasmanian Aboriginal Centre, Hobart

VICTORIA

Barwon Drug and Alcohol Services, Geelong

Macfarlane Burnet Institute for Medical Research and Public Health)

Brighton Medical Clinic Centre for Population Health, Burnet Institute, Melbourne Centre for Women's Health, Gender and Society, Melbourne School of Population Health, University of Melbourne Deakin Health Economics Unit, Deakin University, Melbourne Deakin University, Melbourne Department of Health Services, Victoria Department of Microbiology and Immunology, The University of Melbourne, Melbourne Harm Reduction Victoria Health Information Exchange, Salvation Army, Melbourne Health Works, Footscrav Indigenous Eye Health Unit, School of Population Health, The University of Melbourne Inner Space, Melbourne La Trobe University, Melbourne Melbourne Pathology, Melbourne Melbourne Sexual Health Centre The Microbiological Diagnostic Unit. University of Melbourne

Middle Park Clinic, Melbourne Monash Medical Centre, Melbourne Monash University, Melbourne Murdoch Childrens Research Institute, Melbourne National Reference Laboratory Nexpep, Victoria North Richmond Drug Safety Program, Melbourne

Northcote Clinic, Melbourne Northside Clinic, Fitzroy North People Living with HIV/AIDS (PLWHA), Melbourne Prahran Market Clinic, Melbourne

Royal Melbourne Hospital, Melbourne Royal Women's Hospital, Melbourne School of Population Health, The University of Melbourne, Melbourne Straight Arrows

St Vincent's Hospital, Melbourne The Alfred Hospital, Melbourne The Centre Clinic, Melbourne The University of Melbourne Victorian Aboriginal Community Controlled Health Organisation, Melbourne Victorian Aboriginal Health Service,

Victorian AIDS Council/Gay Men's Health Centre (GMHC), Melbourne Victorian Cytology Service Inc, Melbourne Victorian Infectious Diseases Reference Laboratory, Melbourne

Wellness Centre Medical Clinic, Malvern

Walter and Eliza Hall Institute, Melbourne, Victoria

WESTERN AUSTRALIA

Aboriginal Community Controlled Health Services, Western Australia

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Aboriginal Health Council of Western Australia, Perth Centre for Clinical Immunology and Biomedical Statistics, Perth Communicable Diseases Control Directorate, Department of Health, Perth Curtin University of Technology Data Linkage Western Australia, Perth Department of Health, Western Australia Derbarl Yerrigan Health Service, Perth Duncraig Medical Centre, Duncraig Fremantle Hospital Fremantle Hospital Sexual Health Service Kimberley Aboriginal Medical Services Council, Broome Murdoch University, Perth

National Drug Research Institute, Curtin University of Technology Royal Perth Hospital, Perth Royal Perth Hospital, Centre for Clinical Immunology and Biomedical Statistics Royal Perth Hospital Sexual Health Clinic Royal Perth Hospital, Department of Clinical Immunology

Sexual Health and Blood Borne Virus Program, Department of Health, Perth University of Western Australia, Perth Western Australian AIDS Council (WAAC).

Western Australia Country Health Service (WACHS), Perth Western Australian Substance Users Association (WASUA), Perth

Academic Medical Centre, University of

American Foundation for AIDS Research

risikoarmen Umgang mit Drogen), Zurich,

ARUD (Arbeitsgemeinschaft für

INTERNATIONAL

Amsterdam, Amsterdam

AIDS Task Force of Fiji

(amfAR), New York

Association (CWDA)

Switzerland

Asian Network of People Who Use Drugs (ANPUD) Avdeling Spesialiserte Ruspoliklinikker, Norway Bacj Mai Hospital, Hanoi, Vietnam Bamrasnaradura Hospital, Bangkok Barts and the London NHS Trust, London, Beijing Ditan Hospital, Beijing Bingham University Teaching Hospital, Jos, Nigeria British Columbia Centre for Disease Control, Vancouver, Canada British Columbia Centre for Excellence in HIV/AIDS, Vancouver, Canada Brown University, Providence, USA Calgary Regional Health Authority, Canada Cambodian Women's Development

Canadian Trials Network (CTN), Vancouver

Catalan Institute of Oncology, Barcelona

Centers for Disease Control and

Prevention, USA Centre for Research on Drugs and Health Behaviour, London School of Hygiene & Tropical Medicine, UK Chelsea and Westminster Hospital, Chaing Mai University, Chaing Mai, Thailand Chiang Rai Regional Hospital, Chiang Rai, Thailand Children Hospital No. 1, Ho Chi Min City, Vietnam Children Hospital No. 2, Ho Chi Min City, Vietnam Chonburi Regional Hospital, Chonburi, Thailand Chongqing Medical University, ChongQing, China Chris Hani Baragwanath Hospital, Soweto, South Africa Chulalongkorn Hospital, Bangkok Cipto Mangunkusumo General Hospital, Jakarta Concept Center for Addiction Treatment, Munich, Germany Concerted Action on Seroconversion to AIDS and Death in Europe (CASCADE) and its contributors, Coordinating Unit, London Copenhagen HIV Programme, Hvidovre University Hospital, Copenhagen Cornell University, New York Department of HIV/GUM Research, Department of Social Medicine, University

Brighton, UK of Bristol, UK Division of Infectious Diseases, Department of Internal Medicine, Yonsei University College of Medicine, Seoul Division of Statistics, School of Public Health, University of Minnesota, Minneapolis, USA Evangel Hospital, Jos, Nigeria Duke Clinical Research Institute, Duke University, Durham, North Carolina, USA East Toronto Hepatitis C Program, Toronto, Canada ESPOO Treatment and Rehabilitation A-Clinic, Finland

Faculté Créteil Henri Mondor, Créteil,

France Faculty of Medicine, Udayana University

and Sanglah Hospital, Denpasar, Bali, Indonesia

Family Health International (FH), Cambodia Fundacion Arriaran, Santiago, Chile Fundacion Centro de Estudios Infectologicos (FUNCEI), Clinica La Sagrada Familia, Buenos Aires Gemeinschaftspraxis Jessen, Berlin, Germany

German Cancer Research Center, Heidelberg

Harvard University, Boston HIV Netherlands, Australia, Thailand Research Collaboration (HIV-NAT), Hôpital Pitié-Salpêtrière, Paris

Hôpital Saint-Louis, Paris Hospital Almenara, Lima, Peru Hospital Central, Mendoza, Argentina Hospital de Clinicas Jose de San Martin,

Buenos Aires Hospital Dos de Mayo, Lima, Peru

Hospital General de Agudos JM Ramos Mejia, Buenos Aires Hospital General de Agudos Juan A

Fernandez, Buenos Aires Hospital General de Agudos Teodoro

Álvarez, Buenos Aires Hospital General de Guadelajara, Mexico Hospital General de Leon, Mexico

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, Buenos Aires, Argentina

Hospital Kuala Lumpur, Malaysia Hospital Paroissien, Buenos Aires, Argentina Hospital Pulau Pinang, Malaysia Hospital Likas, Kota Kinabalu, Malaysia Hospital Nacional Prof Dr Alejandro

Posadas, Buenos Aires Hospital Raja Perempuan Zainab II, Kelantan, Malaysia

Hospital Rawson, Bajada Pucara, Argentina Hospital San Borja-Arriaran, Santiago, Chile Hospital Sungai Buloh, Kuala Lumpur Hunan Provincial CDC, Hunan, China Imperial College, St Mary's Hospital, London

Infections and Immunity, Avenir Group, Hôpital Pitié Salpêtrière, Université Pierre et Marie Curie-Paris, France Institute of Infectious Disease, Pune, India

Institute of Tropical Medicine, Antwerp, Belgium

Instituto de Medicina Tropical Alexander von Humboldt, Lima, Peru Instituto Nacional de Ciencias Médicas y

Nutricion Salvador Zubrián, Mexico City Integrated Treatment Centre, Hong Kong International AIDS Society, Geneva International Consortium of Investigators Working on Non-Hodgkin's Lymphoma

Epidemiologic Studies (InterLymph) Johns Hopkins University, Baltimore Jos University Teaching Hospital, Jos, Nigeria

JOSHA Research, Bloemfontein, South Africa

JW Goethe Universität, Frankfurt Khon Kaen University, Khon Kaen, Thailand

Koda Bern/Poliklinik Fur Infektiologe, Bern Switzerland

Kumamoto Univeristy, Japan Massachusetts General Hospital, Boston

Mater Misericordiae University Hospital, Dublin Medical Group Practice, Berlin

Medical Research Council Clinical Trials Unit, London Medisch Sociaal Opvang Centrum

(MSOC) Antwerp, Belgium

Minhang District CDC, Shanghai, China Ministry of Public Health, Bangkok Muirhouse Medical Group, Edinburgh, UK National Cancer Institute, National Institutes of Health, Bethesda, USA National Center for Global Health and Medicine, Tokyo, Japan National Center for HIV/AIDS, Dermatology and STDs (NCHADS),

Phnom Penh National Health Laboratory Services, University of Witwatersrand, Johannesburg

National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, USA

National Hospital for Tropical Diseases, Hanoi, Vietnam

National Hospital of Pediatrics, Hanoi National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, USA National Institute of Hygiene and

Epidemiology (NIHE), Vietnam National Institute on Drug Abuse, National Institutes of Health, Bethesda,

National Taiwan University Hospital, Taipei New Hope for Cambodian Children,

Phnom Penh Nottingham University Hospitals NHS Trust, Nottingham, UK

Oslo University Hospital, Oslo, Norway Papua New Guinea Institute for Medical Research, Goroka, Papua New Guinea Papua New Guinea National AIDS Council Papua New Guinea National Department of Health

Partners AIDS Research Center, Boston Plateau State Specialist Hospital, Jos, Nigeria

Praxiszentrum Im Tal (PIT), Ludwig-Maximilians-Univesitat, Munich, Germany

Providence Health Care, Vancouver Public Health Service (GGD), Amsterdam, the Netherlands

Queen Elizabeth Hospital, Hong Kong Ragon Institute of MGH, MIT and Harvard, Boston, USA

Ramathibodi Hospital, Mahidol University, Bangkok

Rambam Medical Centre, Haifa, Israel Research Institute for Health Science, Chiang Mai, Thailand Saint Dizier Hospital, France

Sanglah Hospital, Bali, Indonesia Siriraj Hospital, Bangkok South Riverdale Community Health Centre, Toronto, Canada

Srinagarind Hospital, Khon Kaen, Thailand Stanford University, Stanford, USA St Luc Hospital, Centre Hospitalier de

l'Universite de Montreal (CHUM), Canada Swiss HIV Cohort Study, Copenhagen Tan Tock Seng Hospital, Singapore Tel Aviv Sourasky Medical Centre, Israel Thai Ministry of Public Health/US

Centre for Disease Control & Prevention Collaboration (TUC) Bangkok Thai Red Cross Society, Bangkok Toronto General Research Institute. Toronto, Canada Toronto Hospital, Canada TREAT Asia, American Foundation for AIDS Research (amFAR), Bangkok, Thailand and New York, USA Tsinghua University Uduyana University, Sanglah Hospital, Bali UNAIDS, Geneva

Université Laval, Quebec, Canada University Health Network, Toronto, Canada

University of Malaya Medical Centre, Kuala Lumpur

University of British Columbia University of California, San Diego University of California, San Francisco Université Laval, Quebec, Canada University of Maryland, Baltimore, USA University of Minnesota, Minneapolis,

University of Oxford, UK University of Toronto, Canada US Centres for Disease Control (CDC), Vietnam

Vaccine and Gene Therapy Institute (VGTI) Port St. Lucie, Florida, USA Waikato Hospital, Hamilton NZ The World Bank The World Health Organisation, Geneva

YRG Centre for AIDS Research and Education, Chennai, India Yuxi Prefecture CDC, Yunnan, China Zentrum für Suchtmedizin ZfS, Basel, Switzerland

Ziekenhuis Oost Limburg, Genk, Belgium ZNA Stuivenberg, Antwerp, Belguim

PHARMACEUTICAL AND **BIOMEDICAL INDUSTRY**

Abbott Australasia Pty Ltd, Sydney Boehringer Ingelheim Pty Ltd, Sydney Bristol-Myers Squibb Pharmaceuticals, Melbourne Calimmune, USA CSL Limited, Melbourne Gilead Sciences, Foster City, California

GlaxoSmithKline Australia, Melbourne Janssen-Cilag Ptv Ltd, Sydney Johnson & Johnson Research Pty Ltd, Sydney Matrix Laboratories, Hyderabad, India

Merck Sharp and Dohme, Sydney Pfizer Australia Pty Ltd, Sydney **Roche Pharmaceuticals** Roche Products Pty Ltd, Sydney Schering Plough Pty Ltd, Sydney ViiV Healthcare, Sydney

The following list describes the actual funding that was provided to the Kirby Institute in the 2011 year.

The following list describes the actual funding that was provided to the kirby institute in the 2011 year.	
Australian Government Department of Health and Ageing	
Research activities for blood borne virus and sexually transmissible infections 3,879,917	
Establishment and maintenance of a trachoma surveillance and reporting unit	242,703
Other grants and contracts from public sources	
American Foundation for AIDS Research:	
A randomised open-label study of second-line combination ART	225,739
TREAT Asia Quality Assurance Scheme (TAQAS)	93,597
TREAT Asia Studies to Evaluate Resistance (TASER)	150,181
TREAT Asia Pediatric HIV Observational Database (TApHOD)	179,985
AusAID: Improving HIV/AIDS surveillance and evaluation in China	33,770
Australian Institute of Health and Welfare: Evaluation of the improving sexual health in Aboriginal and Torres Strait Islander youth	13,018
demonstration projects Australian Red Cross Society: Monitoring transfusion transmissible infections among blood donors	23,376
Australian red cross society. Wonttoling transitusion transmissible infections among blood donors	25,570
Australian Research Council (ARC):	
Improving health & criminal justice outcomes among Australia's offender population using a multi-disciplinary, all of government approach	351,386
In vivo molecular imaging using engineered affinity reagents and fluorescent laser scanning confocal endomicroscopy	125,555
Planning female and male vaccination and cervical screening strategies to achieve optimal prevention of HPV-related disease (Project)	66,079
Planning female and male vaccination and cervical screening strategies to achieve optimal prevention of HPV-related disease (APAI)	27,651
Sexual health and relationships in young Indigenous people	206,275
Using mathematical modelling to inform HIV/AIDS public health policy	181,524
Understanding spatial trends in HIV/AIDS infections in South Africa and Australia	77,762
Australian Society for HIV Medicine: A Prospective cohort study of Hepatitis C treatment delivery in primary care settings	21,675
Bill and Melinda Gates Foundation: ENCORE: Evaluation of Novel Concepts in Optimization of Antiretroviral Efficacy	2,730,827
Curtin University of Technology: National prison entrants' bloodborne virus (BBV) and risk behaviour survey	59,466
Dept of State & Regional Development to Industry & Investment NSW – Infrastructure Funding agreement with St Vincent's Hospital	1,609,008
European Medicines Evaluation Agency: Data Collection on Adverse Events of Anti-HIV Drugs Study	66,268
JTA International Pty Ltd (AusAID subcontract):	
Papua New Guinea-Australia HIV & AIDS program	29,250
Qualitative longitudinal study to investigate masculinity sexuality and agency among male youth in PNG	132,100
Medical Research Council, UK: SPARTAC Study	101,047
Medlmmune Limited - Australian Research Council (ARC) Linkage Partner: In vivo molecular imaging using engineered affinity reagents	00.007
and fluorescent laser scanning confocal endomicroscopy	92,397
NHMRC	
Capacity Building Grant - From Broome to Berrima: Building Australia-wide research capacity in Indigenous offender health, health care delivery	39,652
CCRE in Aboriginal Health: Blood borne viral and sexually transmitted infection	296,487
Partnership Project Grant - Evaluation of a model for assessment and treatment of hepatitis C virus among injecting drug users in the	270, 107
opiate pharmacotherapy setting (ETHOS)	538,241
Program Grant - HIV & HCV vaccines and immunopathogenesis	1,633,146
Program Grant - Sexually Transmitted Infections	1,158,888
Project Grant - A randomised trial to control sexually transmitted infections in remote Aboriginal communities	212,008
Project Grant - Defining risk and mechanisms of permucosal transmission for acute HCV infection within high-risk populations	130,639
Project Grant - Hepatitis C, Prisons and Treatment Opportunities (HePATO)	40,551
Project Grant - Hepatitis C Vaccine Preparedness Study	242,343
Project Grant - Modelling and economic evaluation of hepatitis C epidemic mitigation strategies in Australia	155,079
Project Grant - Modelling the interaction between sexually transmitted infections and HIV transmission to inform public health policy	186,329
Project Grant - Social norms regarding HIV/STI risk and risk reduction behaviours among men who have sex with men in Australia	214,576
Project Grant - Viral load, HIV treatment, and HIV transmission in serodiscordant male homosexual couples	191,883
Decearsh Follows	
Research Fellows:	104.545
Practitioner Fellowship for Basil Donovan	104,745
Practitioner Fellowship for Greg Dore	87,318
Practitioner Fellowship for Tony Kelleher Postgraduate Scholarship for Bethany White	74,844 25,110
Postgraduate Scholarship for Tina Iemma	25,110
Public Health Fellowship for Bette Liu	81,448
Public Health Fellowship for Rebecca Guy	73,813
	. 0,010

Public Health Fellowship for Peter Higgs	73,813
PRF - Andrew Grulich	140,559
SPRF - John Kaldor	158,972
SPRF - Lisa Maher	116,182
Training Fellowship for Anna Olsen	146,321
Training Fellowship for Andrew Vallely	81,223
Training Fellowship for David Templeton	44,362
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NHMRC - Program Grant Subcontract	
University of Sydney: Building research capacity for health interventions to improve Aboriginal health	56,750
University of Melbourne: Using mathematical models to assess impact of interventions to reduce sexually transmitted infections in Australia	120,000
NSW Health Department	
Australian Chronic Hepatitis C Observational Study (ACHOS)	141,088
Chlamydia Literature Review	75,000
Mapping of the community networks and groups among men who has sex with men in NSW (The Mapping Study)	25,000
NCHECR HIV Surveillance and Epidemiology Support	125,000
NPA-IH Aboriginal Hepatitis C Project	25,000
NPA-IECD Aboriginal Sexual/Reproductive Health Project	25,000
NSW Aboriginal Sexual Health and BBV Research Study - Stage One (SHIMMER)	40,850
The eTEST Project: An initiative to enhance STI Testing in gay men	223,669
The HIV Seroconversion Study	53,853
Sexual health and relationships in young Indigenous People (ARC Linkage Partner)	20,500
NSW Department of Health/NHMRC Partnership Project Partner Contribution – Evaluation of a model for assessment and	050.000
treatment of hepatitis C virus among injecting drug users in the opiate pharmacotherapy setting (ETHOS)	350,000
Other State Health Department	
	2 000
ACT Health - Sexual health and relationships in young Indigenous People (ARC Linkage Partner) Queensland Health - Sexual health and relationships in young Indigenous People (ARC Linkage Partner)	2,000 25,000
Queensland Health - Study of risk factors for HIV seroconversion	46,477
Tasmania Health & Human Services - Sexual health and relationships in young Indigenous People (ARC Linkage Partner)	3,000
Victoria Health - Sexual health and relationships in young Indigenous People (ARC Linkage Partner)	31,000
Western Australia Health - Sexual health and relationships in young Indigenous People (ARC Linkage Partner)	3,000
Western Australia Health - Study of risk and HIV among men who have sex with men in Western Australia	14,915
Queensland University of Technology/Department of Employment: Economic Development and Innovation -	- 1,7 - 2
National and International Research Alliances Program Shared Grant/Subcontract Australia-Canada-India Chlamydia	
Research Alliance Improved detection treatment and control of chlamydial infections	35,000
Schering-Plough Research Institute: Health Liver Campaign	360,368
The Cancer Council NSW - Strategic Research Partnership Grant with University of Sydney – Towards a strategic partnership (STREP)	50,000
The University of Melbourne - Collaborative Agreement from Department of Health & Ageing – Evaluation of Chlamydia Pilot	
in General Practice (ACCEPt)	242,393
UNAIDS: Evaluating the effectiveness of needle and syringe programs in Eastern Europe	33,681
University of Basel: Swiss HIV Cohort Study - Myocardial infarction, assessment of antiretroviral and genetic factors in human	
immunodeficiency virus infection MAGNIFICENT	4,239
US National Institutes of Health: Treatment of recently acquired hepatitis C virus infection (ATAHC 2)	327,842
US National Institutes of Health Subcontract	
American Foundation for AIDS Research: TREAT Asia HIV Observational Database (APHOD)	356,196
University of California, San Francisco Institute for Global Health: Culture and HIV Prevention in Cambodia	16,458
University of Minnesota: INSIGHT - Leadership	323,543
University of Minnesota: INSIGHT - FLU 002 & FLU 003	300,637
University of Minnesota: START Study University of Minnesota: STALWART Study	424,871
Subrecipient Agreement with University of Maryland, Baltimore: Eco-Pathogenomics of Chlamydial Reproductive Tract Infection	48,092 33,097
World Bank (USA): Evaluation of HIV Epidemics and Programs in Asia	180,658
world balik (OSA). Evaluation of the Epidelines and Frograms in Asia	100,030
Pharmaceutical Industry Funding	
CSL Limited	92,967
Gilead Science Pty Ltd	20,000
Janssen-Cilag Pty Ltd	14,820
Merck Sharp & Dohme	1,194,803
Pfizer Inc	3,410,555
Pfizer Inc via Quintiles Pty Ltd	49,901
Tibotec Pharmaceuticals Ltd via Quintiles Pty Ltd	3,871
Total	25,925,287

The following list describes grants that were awarded to Kirby Institute researchers commencing in 2011.

Butler T. From Broome to Berrima: Building Australia-wide research capacity in Indigenous offender health and health care delivery. NHMRC Capacity Building Grant. NHMRC 2011-2014 \$1,578,004

Butler T. ARC Future Fellowship. Improving health and criminal justice outcomes among Australia's offender population using a multi-disciplinary, all of government approach. 2011-2013. \$437,672

Butler T. Hepatitis C, Prisons and Treatment Opportunities (HePATO). NHMRC Project Grant. 2011. \$198,929

Butler T. Improving health and criminal justice outcomes among Australia's offender population using a multidisciplinary, all of government approach (infrastructure). ARC Future Fellowship. 2011-2013. \$198,108

Butler T. National prison entrants' bloodborne virus (BBV) and risk behaviour survey. Curtin University of Technology. 2011. \$59,446

Cooper DA, Hsu D. Using a new test that detects antigen specific recall immune response to further understand the process of immune recovery in patients on treatment for HIV and in the diagnosis of latent TB. NHMRC Postgraduate Research Scholarship. 2011-2013.

Donovan B. Long-term national surveillance for genital warts through Australian sexual health services. CSL Limited 2011-2012 \$136,364

\$45,186

Dore G, Clark P. Individualising care of patients with chronic hepatitis C. NHMRC Postgraduate Research Scholarship. 2011-2012.

\$54,125

Dore G, Dalgard O, Grebely J, Moussalli J, Bruggmann P, Robaeys G, Swan T. A phase IV open-labelled multi-centre, international trial of response guided treatment with directly observed pegylated alpha 2b and self-administered ribavirin for patients with chronic HCV genotype 2 or 3 infection and ongoing injection drug use (ACTIVATE). Merck, Sharp and Dohme Australia. 2011-2013. \$1,429,153

Dore G. Evaluation of a model for assessment and treatment of hepatitis C virus among injecting drug users in the opiate pharmacotherapy setting (ETHOS). NHMRC Partnership Project Grant. 2011-2014. \$1,405,144

Dore G. Evaluation of a model for assessment and treatment of hepatitis C virus among injecting drug users in the opiate pharmacotherapy setting - (ETHOS). NSW Department of Health/NHMRC Partnership Project Partner Contribution. 2011-2015. \$1,000,000

Dore G. Healthy Liver Campaign. Schering-Plough Research Institute. 2011. \$360.368

Dore G. International Collaborative of prospective studies of HIV and Hepatitis in IDU. National Institute of Health (NIH) - Shared Grant with University of California, San Francisco. 2011. US\$13,306

Dore G. Reducing the health, social and economic burden of injecting drug use in Australia Scholarship for Maryam Salehi Alavi. Centres of Research Excellence Shared Grant. Burnet Institute/NHMRC 2011-2013 \$88,392

Emery S. A randomised open-label study of second-line combination ART. American Foundation for AIDS Research. 2011. US\$225,000

Emery S. Multicentre randomised clinical trial to examine the safety and efficacy of switching to maraviroc based cART in patients with stable HIV disease who are treated successfully with 2xN(t) RTI_NNRTI or PI therapy - MARCH Study. Pfizer Inc. 2011-2013. US\$8,777,808

Gidding H. Report on data from Australian Chronic Hepatitis C Observational Study. Janssen-Cilag. 2011. \$400.

Grulich A. Viral load, HIV treatment, and HIV transmission in serodiscordant male homosexual couples. NHMRC Project Grant. 2011-2015. \$1,381,973

Guy R. A randomised controlled trial to evaluate the effectiveness and costeffectiveness of chlamydia testing in general practice. Shared NHMRC Project Grant .NHMRC/University of Melbourne 2011-2014 \$20,252

Guy R. A randomised trial of rapid pointof-care tests for chlamydia and gonorrhoea infections in remote Aboriginal communities. NHMRC Project Grant: 2011-2014. \$758,020

Guy R. Chlamydia Literature Review. NSW Health. 2011. \$50,000

Guy R. The eTEST Project: An initiative to enhance STI Testing in gay men. NSW Health. 2011-2013.

\$326,006

Iemma T. The role of Dynamin-2 in HIV pathogenesis. NHMRC Postgraduate Research Scholarship. 2011-2013. \$62,375

Jin F. Anogenital human papillomavirus infection and its outcomes in men. NHMRC Training Fellowship. 2011-2012. \$137,626

Jin F. Anogenital human papillomavirus infection and its outcomes in men NHMRC Training Fellowship (Direct Research Costs). 2011-2012. \$10,000

Kaldor J. Establishment and maintenance of a trachoma surveillance and reporting unit (Trachoma) Department of Health and Ageing. 2011-2013. \$540,635

Kaldor J. Papua New Guinea-Australia HIV & AIDS program, JTA International Pty Ltd (AusAID subcontract). 2011 \$29,250

Law M. Asia Pacific HIV Research Collaboration: Cancer Studies. American Foundation for AIDS Research. 2011-2012 US\$26,655

Law M. Asia Pacific HIV Research Collaboration: Tuberculosis Studies. American Foundation for AIDS Research. 2011-2012 US\$68,003

Law M. Australian Chronic Hepatitis Observational Study (ACHOS). NSW Health. 2011 \$141,088

Liu B. Identifying predisposing factors for, and the consequences of, common and emerging infectious diseases in a large prospective cohort study of adults. Clive and Vera Ramaciotti Foundation/ Establishment Gift. 2011. \$74,688

Maher L. International Collaborative of prospective studies of HIV and Hepatitis in IDU. National Institute of Health (NIH) - Shared Grant with University of California, San Francisco. 2011.
US \$13,306

Matthews GV, Gaudieri S, Applegate T, Grebely J, Lucas M, Dore GJ, Hellard M. Evaluation of naturally occurring resistance to Direct Acting Antiviral Drugs (DAAs) in individuals with acute hepatitis C infection. NHMRC Project Grant. 2011-2012.
\$325,142

Poynten M. Serological studies of Human Papillomavirus infection in gay Australian men. NHMRC Training Fellowship Funds. 2011-2014. \$135,016

Poynten M. Serological studies of Human Papillomavirus infection in gay Australian men NHMRC Training Fellowship Funds (Direct Research Costs).2011-2014. \$10.000

Prestage G. The HIV Seroconversion Study. NSW Health. 2011. \$53,853

Templeton D. The presence and progression of anal pre-cancerous abnormalities in mature-aged homosexual men. NHMRC Training Fellowship Funds. 2011-2014. \$132,013

Templeton D. The presence and progression of anal pre-cancerous abnormalities in mature-aged homosexual men (Direct Research Costs). NHMRC Training Fellowship Funds. 2011-2014. \$8,000

Turville S. Dissemination of HIV and establishment of cellular reservoirs during transmission. NHMRC Career Development Award. 2011-2013. \$258,619

Turville S. HIV assembly, transport, egress and transfer from infected dendritic cells. NHMRC Project Grant. 2011. \$86,759

Vallely A. Longitudinal HIV and STI prevention research for improved sexual health in Melanesia. NHMRC Training Fellowship Funds. 2011-2014. \$300.032

Vallely A. Longitudinal HIV and STI prevention research for improved sexual health in Melanesia NHMRC Training Fellowship Funds. (Direct Research Costs). 2011-2014 \$20,000

Vallely A. Qualitative longitudinal study to investigate masculinity sexuality and agency among male youth in PNG. JTA International Pty Ltd (AusAID subcontract). 2011. \$259,150

Ward J. NPA-IECD Aboriginal Sexual/ Reproductive Health Project. NSW Health. 2011-2014 \$499,997

Ward J. NPA-IH Aboriginal Hepatitis C Project. NSW Health. 2011-2013. \$94,767 Wilson D. Evaluation of HIV Epidemics and Programs in Asia. World Bank (USA). 2011-2013. US\$1,781,826

Wilson D. Monitoring transfusion transmissible infections among blood donors. Australian Red Cross Society. 2011-2012. \$35,962

Wilson D. National and International Research Alliances Program Shared Grant/Subcontract Australia-Canada-India Chlamydia Research Alliance Improved detection treatment and control of chlamydial infections. Queensland University of Technology/Department of Employment, Economic Development and Innovation. 2011-2013. \$105,000

Wilson D. NCHECR HIV Surveillance and Epidemiology Support. NSW Health. \$300,000

Zablotska-Manos I. Mapping of the community networks and groups among men who has sex with men in NSW (The Mapping Study). NSW Health. 2011. \$35,000

Total \$23,056,970

CONFERENCE PRESENTATIONS

Health, Wellness and Society
Conference (Berkeley, January)

Olsen A. Unlearning research practices: Developing and implementing a feasibility pilot on hepatitis B within a remote Aboriginal Australian community.

14th Bangkok International Symposium on HIV Medicine (Bangkok January) Kelleher AD. Chronic Immune Activation: important co-morbidities in HIV disease. Kelleher AD. Molecular Laboratory Design and Layout.

Kelleher AD. Update on Infectious Molecular Assay. Matthews GV: Managing HIV-HCV coinfection in resource limited settings.

UNAIDS Europe and Central Asia Regional NSP economic evaluation workshop (Chisinau, Moldova, January) Wilson DP. Evaluating the costeffectiveness of Australia's needle-syringe programs: the big picture.

Wilson DP. Evaluating effectiveness: ecological analyses and mathematical transmission modelling.

Wilson DP. Evaluating effectiveness: disease stages and translation to economic analyses.

Wilson DP. Conducting simple epidemic and economic evaluations.
Wilson DP. Use of UNAIDS-UNSW software for evaluating NSPs.
Wilson DP. Data requirements and interpretation for evaluating public health

Canadian Association for the Study of the Liver Annual Winter Meeting (Vancouver, February)

programs.

Grebely J HCV treatment in marginalized populations

5th Biennial Meeting of the Chlamydia Basic Research Society, (Los Angeles, March) Wilson DP. Integration of mathematical modelling and experimental data associated with chlamydia infections.

15th International Workshop on HIV Observational Databases (Prague, March) Wright ST, Carr A, Woolley I, Giles M, Hoy J, Cooper DA, Law MG. CD4 Cell Responses to combination antiretroviral therapy in patients starting therapy at high CD4 cell counts.

Pre-exposure Prophylaxis Modelling Meeting (Montreux, Switzerland, March) Wilson DP. Oral PrEP for men who have sex with men.

Sydney Clinic Current Issues in Medicine and Psychiatry Conference 2011 (Sydney, March) Dore GJ. Five Viruses: Swine flu, HIV, HAV, HBV, HCV

Ministerial Advisory Committee on HIV and STIs – Health Promotion Sub-Committee (Sydney, March) Gray RT, Down I. NSW HIV Modelling & Acceptability.

Wilson DP. NSW HIV modelling and acceptability study findings.

46th Annual Meeting of the European Association for the Study of the Liver (EASL) (Berlin, March-April) Dore GJ. Liver disease mortality in substance users EASL/INHSU workshop:

Dore GJ. Liver disease mortality in substance users EASL/INHSU workshop Every-day problems in substance users infected with hepatitis C viral infection

22nd International Conference
International Harm Reduction
Association (IHRA) (Beirut, April)
Harris M, Rhodes T, Treloar C, Maher L.
Venous access and track mark avoidance:
Harnessing pragmatic concerns in HCV
prevention interventions.
Hellard M, Sacks-Davis R, Higgs P,

Spelman T, Pedrana A, Bowden S, Bharadwaj M, Usha N, Vijayaprakash S, George J, Drummer H, Aitken C. Reducing the impact of hepatitis C infection: deciphering how and why it spreads. Maher L, Phlong P, Mooney-Somers J, Phal S, Couture MC, Sansothy N, Bates A, Page K. A hard sell - safe sex in unsafe spaces: Negotiating the sex work risk environment in Phnom Penh, Cambodia

12th International Workshop on Clinical Pharmacology of HIV Therapy (Miami, April)

Else LJ, Jackson A, Puls R, Hill A, Fahey P, Lin E, Amara A, Siccardi M, Tjia J, Emery S, Khoo S, Back DJ, Boffito M. Pharmacokinetics of plasma lamivudine (3TC), and its active intracellular anabolite 3TC-triphosphate (3TC-TP) over a 24 hour dosing interval following administration of 3TC 300 mg and 150 mg once daily (od) to HIV-negative healthy volunteers. The ENCORE2 Study.

Dissemination meeting evaluation of epidemiological impact of harm reduction programs on HIV in Vietnam (Hanoi, April)

Wilson DP. Evaluation of the epidemiological impact of harm reduction programs on HIV in Vietnam.
Wilson DP. Improving data collection in Vietnam

Communicable Diseases Control Conference (Canberra, April) Ward J. Infectious Diseases in Aboriginal and Torres Strait Islander Peoples Title: Ensuring we close all the gaps in Indigenous Health in Australia STI and BBV Research.

AFAO forum: HIV and African Communities (Sydney, April) Wilson DP. Update on the HIV epidemic in Australia and relevant data for African communities.

Sources of infections and National Intervention Impact Projections (Montreux, Switzerland, April) Wilson DP. What decision-makers need to know about epidemics.

EUROGIN Conference (Lisbon, May)
Donovan B. Real life impact: quadrivalent
HPV vaccination and genital warts in
Australia.

4th International In Sickness & In Health Conference (Odense, Denmark, May)

Grotowski M, Taylor S, **Ward J**, Croker A. "It's OK for some": What happens when patients don't fit the directed model of care?

1st International Congress on Controversies in Viral Hepatitis (Barcelona, May)

Dore GJ. Hepatitis B: any controversies left?

Papua New Guinea HIV Modelling Meeting, (Port Moresby, May) Gray RT. Overview of the PNG HIV Model. Gray RT. Calibration of the PNG HIV Model.

Gray RT. PNG HIV Model Preliminary Results.

Papua New Guinea HIV Stakeholder Conference (Port Moresby, May) Wilson DP. Use of a public health HIV epidemic model for PNG.

3rd CRIAH Aboriginal Health Research Conference (Sydney, May)

Garton L, Ward J, Rumbold A, Guy R, Silver B, Taylor-Thomson D, Hengel B, Knox J, McGregor S, McDermott R, Maher L, Donovan B, Fairley C, Skov S, Boffa J, Ah Chee D, Kaldor J. STI in remote communities: improved and enhanced primary health care.
Graham S, Guy R, Knox J, Wand H, Kaldor J, Ward J. Sexual Health Quality Improvement Program in Aboriginal Community Controlled Health Services in NSW

Harrod ME, Graham S, Kaldor J,
Donovan B, Ward J. Completeness of
Aboriginal and Torres Strait Islander
Status in Sexually Transmissible Infections
(STI) and Blood-borne Virus (BBV)
Notifications in Australia.

Hui B, Ward J, Wilson D, Guy R, Hocking J, Regan D. Evaluating strategies for the control and prevention of STIs in remote Indigenous communities using mathematical models.

Mooney-Somers J, **Olsen A**, Erick W, Scott R, Akee A, **Kaldor J**, **Maher L**. Through our eyes: Young Indigenous people's blood borne and sexually transmitted infection prevention practices.

Ward J, Arizmendi C, Bryant J, Kaldor J, Pitts M, Smith A, Worth H. The GOANNA Survey (younG Aboriginal and TOrres StrAit IslaNder National sexual heAlth survey). Ward J. Health Service Research to combat STIs in Aboriginal communities. Ward J. Supporting research in Aboriginal communities.

ARCS Sydney Scientific Congress (Sydney, May) Seneviratne N, Puls R, Humphries A, Haskelberg H, Petoumenos K, Courtney-Vega K, Emery S. Assessing site performance in a multinational clinical trial.

20th World Congress for Sexual Health (Glasgow, June)

Prestage GP, **Down I**, Brown G, Hurley M. Desire and Risk: Sick, Bad, or Hot?

First International HIV Social Science and Humanities Conference (Durban, June)

Prestage GP. Pleasure and Risk: 'Intensive Sex Partying' Among Gay Men.

40th Annual Scientific Meeting of the Society of Academic Primary Care (Bristol, June)

Temple-Smith M, Poznanski S, Vaisey A, Wood A, Walker J, Hocking J, Low N, **Donovan B**, Gunn J, **Law M**, **Kaldor J**, **Guy R**, Fairley CK. Chlamydia screening: managing barriers to a complex intervention in the general practice setting.

Australian Centre for HIV and Hepatitis Virology Research (ACH2) 7th annual workshop (Sunshine Coast: June) Applegate T, Gaudieri S, Pham S, White P, Grebely J, Hellard M, Suppiah V, George J, Lloyd A, Dore GJ and Matthews GV Impact of host and viral characteristics on treatment outcome within hepatitis C virus transmission clusters in HIV positive individuals with recently acquired HCV Applegate T, Gaudieri S, Pham S, White P, Hellard M, Suppiah V, George J, Lloyd A, Dore G and Matthews G. HCV transmission clusters in HIV + patients Gaudieri S, Applegate T, Tschochner M, Plauzolles A, Pfafferott K, Lucas M, Diepolder H, Ulsenheimer A, Mallal S, Grebely J, Hellard M, Lloyd A, Kaldor JM, Dore GJ and Matthews GV on behalf of the ATAHC and Munich Study Groups.

Signature resistance mutations to directly acting antiviral agents occur at low prevalence in treatment naïve subjects with recently acquired HCV Grebely J, Feld JJ, Matthews GV, Applegate T, Hellard M, Suppiah V, Sherker A, Petoumenos K, Shaw I, Yeung B, Rawlinson W, Booth D, Kaldor JM, George J, Lloyd AR and Dore GJ on behalf of the ATAHC Study Group. IP-10 is Associated with Spontaneous Clearance of Recent Hepatitis C Virus Infection Luciani F, Teutsch S, Topp L, McCredie L, Levy M, Dolan K, Lloyd A and HITS investigators. 'Bloody' prisons - predictors of risk behaviour, HCV incidence, and infection outcome in high-risk IDU prisoners.

Annual Clinical Meeting of the Society of Obstetricians and Gynaecologists of Canada (Vancouver, June)

Donovan B. Real life impact: quadrivalent HPV vaccination and genital warts in Australia.

International Seminar on Evidencebased Programmes for Reproductive Health and HIV Interventions (Bali, June)

Kaldor J. Bridging research and policy.

Australian Federation of AIDS Organisations National Forum (Sydney, June)

Murray JM. HIV and Ageing: Implications for Health Promotion Workers.

2nd International Nanomedicine Conference (Sydney, July) Murray JM. Can an anti-HIV gene therapy be effective and avoid the outgrowth of resistant virus?

13th International Workshop on Adverse Drug Reactions and Comorbidities in HIV (Rome, July) Haskelberg H, Hoy J, Amin J, Ebeling PR, Emery S, Carr on behalf of the STEAL Study Group. Lower fat mass and lower bone formation predict greater bone loss with tenofovir in HIV-infected adults.

Mt Sinai Adolescent Health Unit (New York, July)

Donovan B, Guy R, Ali H, Grulich A, Regan D, Wand H, Fairley C. A national program with a national impact: quadrivalent HPV vaccination and genital warts in Australia, 2004-2010.

New York Health Department (New

York, July)

Donovan B, Guy R, Ali H, Grulich A, Regan D, Wand H, Fairley C. A national program with a national impact: quadrivalent HPV vaccination and genital warts in Australia, 2004-2010.

19th Conference of the International Society for Sexually Transmitted Diseases Research (Québec City, July) Donovan B, Guy R, Ali H, Grulich AE, Regan DG, Wand H, Fairley CK. A national program with a national outcome: quadrivalent HPV vaccination and genital warts in Australia, 2004-2010.

Drummond F, Ryder N, Wand J, Guy RJ,

Read P, McNulty AM, Wray L, Donovan B.
Is single dose azithromycin adequate for asymptomatic rectal chlamydia?
Read P, McNulty A, Wand H, Guy R,
Donovan B. Unprotected Fellatio and

Pharyngeal Gonorrhoea in Sydney Sex Workers. Walker J, Fairley CK, Bradshaw C, Tabrizi S, Chen M, Twin J, Taylor N, **Donovan B**, **Kaldor J**, Hocking SJ. The Incidence of genital Chlamydia trachomatis in a Cohort

of Young Australian Women.

10th International Congress on AIDS in Asia and the Pacific (Busan, Korea, August)

Bavinton B, Singh N. Sexual Behaviour And HIV Risk In Men Who Have Sex With Men And Transgender People in Fiji. Wilson DP, Riono P, Kerr C, Kwon A, Zhang L. The HIV in Indonesia Model (HIM).

Zhang L, Loo V, **Wilson DP**. Evaluation of the epidemiological impact of harm reduction programs on HIV in Vietnam.

The Potential for the Spread of Drug Resistance Due to PrEP HIV Consortium (Seattle, September)

Wilson DP. Potential impact of PrEP among men who have sex with men.

Evaluating costs and effectiveness of needle and syringe programs in Europe and Central Asia (Minsk, Belarus, August) Wilson DP. Evaluating effectiveness and cost-effectiveness of needle-syringe exchange programs.

Wilson DP. Using the Needle Exchange Program Evaluation Model Software Tool. Wilson DP. Results from evaluation of NSEPs across Eastern Europe and Central Asia.

National Reference Laboratory Annual Meeting (Canberra August)

Marks K. Assessment of a Genotypic Assay for the Determination of Chemokine Receptor Tropism of HIV-1.

2nd International Symposium on Hepatitis Care in Substance Users (Brussels, September)

Alavi M, Gillman AB, Micallef M, Batey R, Honey C, Bath N, Loveday S, Day C, Dunlop A, Wodak A, Balcomb AC, Abbott P, Rodgers C, Weltman MD, Haber P and Dore GJ. On behalf of the ETHOS study group. Assessment and treatment of hepatitis C virus infection among injecting drug users in the opioid substitution setting: The ETHOS Cohort.

Dore GJ. Clinical aspects of virology,

Dore GJ. Clinical aspects of virology, immunology and host genetics in the treatment of hepatitis in substance users. **Dore GJ.** Treatment of acute hepatitis C in substance users.

Grebely J. Conclusions and future perspectives. **Grebely J** Biomarkers associated with

clearance of HCV infection.

Grebely J, Alavi M, Haber P, Day C,

Matthews GV, van Beek I, Walsh N, Yeung
B, Petoumenos K, Dolan K, Spelman T,

Kaldor JM, Dore GJ, Hellard M on behalf
of the ATAHC Study Group. Impact of
treatment on injecting drug use behaviors
during recent HCV infection: the ATAHC
study.

Macphail GLP, Hilsden R, **Grebely J**, Conway B, Lee S. Pegylated-interferon alpha-2a and ribavirin for the treatment of hepatitis C virus (HCV) infection in active drug users: a randomized controlled trial of immediate versus delayed treatment. Taylor L, DeLong AK, **Grebely J**, Maynard MA, Treloar C. Patient perspectives and facilitators of HCV treatment for HIV/HCV coinfected persons in Rhode Island, United States.

27th International Papillomavirus Conference and Clinical Workshop (Berlin, September) Donovan B, Ali H, Guy RJ, Grulich

Donovan B, Ali H, Guy RJ, Grulich AE, Regan DG, Wand H, Fairley CK Quadrivalent HPV Vaccination and Genital Warts in Australia 2004-2010.

Grulich AE. Scientific Discussion on broadening the clinical and real world experience for HPV vaccination. Grulich AE, Ali H, Guy RJ, Regan

Grulich AE, Ali H, Guy RJ, Regan DG, Wand H, Fairley CK, Donovan B. Quadrivalent HPV vaccination and genital warts in Australia.

Poynten M, Jin JF, Templeton D,
Prestage G, Donovan B, Pawlita M, Fairley
C, Garland S, Grulich A, Waterboer T.
Prevalence, incidence and risk factors for
HPV16 seropositivity in homosexual men.
Regan DG, Conway EL, Stein AN, Philp
DJ, Korostil I, Hocking JS, Brotherton
JM, Law MG, Grulich AE. Accounting
for MSM and herd immunity: HPV

vaccination impact.

Regan DG, Philp DJ, Korostil I, Conway
EL, Stein AN, Law MG. Vaccine efficacy

against HPV transmission; implications for herd immunity.

47th Annual Symposium of the Medical Society of Papua New Guinea: Epidemics, Pandemics and Disasters (Kimbe, PNG, September)

Kaldor J. Population effectiveness of and HPV vaccination program.

Kaldor J. Recent developments in HIV control, in the context of the Papua New Guinea epidemic.

Vallely A, Ryan C, Mola G, Siba P, Kaldor J. Human papillomavirus (HPV) infection among general and at-risk populations in Papua New Guinea.

Vallely A, Tynan A, Kupul M, Aeno H, Kelly A, Neo J, Naketrumb R, Fiya V, Hill PS, Siba P, Kaldor J on behalf of the Male Circumcision Acceptability & Impact Study (MCAIS) Team. Community perspectives of implementing male circumcision for HIV prevention in PNG: implications for future service delivery.

Vallely A, Kelly A, Kaima P, Sauk J, Mek A, Aeno H, Allan J, Naketrumb R, Fiya V, Neo J, Fitzgerald L, Siba P, Kaldor J on behalf of the Male Circumcision Acceptability & Impact Study (MCAIS) Team. Acceptability of male circumcision for HIV prevention among men and women attending sexual health clinics in PNG.

Sexual Health/Public Health Combined Annual (Kimbe, PNG, September) Gray R, Murray J, Vallely A, Siba P, Kaldor J, Wilson D. Estimating the impact of male circumcision on the HIV epidemic in Papua New Guinea. (John Kaldor presented on behalf or Richard Gray).

23rd Annual Conference of the Australasian Society for HIV Medicine (Canberra, September)

Chow EPF, Wilson DP, Zhang J, Jing J, Zhang L. HIV prevalence is rapidly increasing among men who have sex with men in China: A systematic review and meta-analysis.

Dore GJ New therapies for HCV.
Down I, Bradley J, Ellard J, Brown G,
Prestage G. Do gay men who get infected
with HIV have a history of regular HIV
testing?

Down I, Bradley J, Ellard J, Brown G, **Prestage G.** How recently diagnosed gay men feel about the prospect of HIV treatments

Down I, Prestage G, Hurley M, Hellard M, Sasadeusz J, Matthews G, Danta M. HIV-positive gay men have limited understanding of hepatitis C. Gray RT, Murray JM, Vallely A, Lote N, Lupiwa T, Millan J, Daoni E, Kaldor J, Siba P, Wilson D. The PNG HIV Model:

Explaining the past, describing the present, and forecasting the future of the HIV epidemic in PNG.

Gray RT, Prestage GP, Down I, Bradley J, Ghaus MH, Hoare A, Wilson DP. HIV Pre-Exposure Prophylaxis for Australian Gay Men is Effective but too expensive. Guy R, Wand H, McManus H, Vonthanak S, Woolley I, Honda M, Read T, Sirisanthana T, Zhou J, Carr A on behalf of AHOD and TAHOD. Antiretroviral treatment interruptions in developed and developing countries: Implications for 'the treatment-as-prevention' strategy. Harrod M E, Wilson D, Ward J. HIV in Aboriginal Australians: Prevention in prison settings should be a key focus. Hui B, Gray RT, Wilson DP, Ward J, Smith A, Philp D, Hocking J, Regan D. The importance of mobility in sustaining high STI prevalence in remote Indigenous communities.

Hunter M, Paull S, **Pett SL**, Post JJ. On Again Off Again: Cavitatory Pulmonary Mycobacterium Avium Complex Disease – Compliance, Resistance And Immune Reconstitution.

Lee H-C, Kaldor J, Drummond F, Baker D, Donovan B, Guy R. Extent and duration of unplanned antiretroviral treatment interruption in adults with HIV infection: a systematic review.

Liu B, Guy R, Donovan B, Kaldor J. Characteristics associated with repeat *Chlamydia trachomatis* notifications in Australian women.

Matthews G. HIV/HCV coinfection: Treatment decision making in a new era. Mallitt KA, Jansson J, McGuigan D, Wand H, Wilson DP. Spatial analysis of HIV clinical service capacity in Australia reveals current and future areas of workforce shortage.

Mallitt KA, Wilson DP, McDonald A, Wand H. HIV incidence trends by Australian jurisdiction reveal a marked rise in Queensland: an extended backprojection analysis of men who have sex with men.

Matthews G. HIV/HCV coinfection: treatment decision making in a new era. McDonald AM, Cunningham P, Kelleher A, Kaldor JM, Wilson DP. Monitoring HIV transmission using the BED assay. McManus H, O'Connor CC, Boyd M, Broom J, Russell D, Watson K, Roth N, Read P, Petoumenos K, Law M on behalf of the Australian HIV Observational Database. Long term survival of HIV positive patients with up to 15 years of antiretroviral therapy in AHOD. Mlambo E. HIV epidemiology among people from culturally and linguistically diverse (CALD) background in Australia. O'Dwyer M. Are young gay men at risk? Petoumenos K, van Leuwen M, Vajdic C, Woolley I, Chuah J, **Templeton DJ**, Grulich AE, Law M. Cancers in the

Australian HIV Observational Database.

Prestage GP, Down I, Brown G, Hurley
M. Desire and Risk: Sick, Bad, or 'Hot'?

Prestage GP, Down I, Hurley M, Brown
G. Is Optimism Enough?

Read T, Fairley C, Vincini J, Morrow
A, Hocking J, Bradshaw C, Vodstrcil L,

Grulich AE, Chen M. Rapid HIV testing in
homosexual men: Early lessons from the
smartest study.

Shea B. Aspin C. Ward J. Archibald C.

Shea B, Aspin C, **Ward J**, Archibald C, Dickson N, **McDonald A**, Penehira M, Halverson J, Masching R, McAllister S, Tuhiwai Smith L, **Kaldor J**, Andersson N. HIV diagnoses in Indigenous peoples: comparison of Australia, Canada and New Zealand.

Ward J. Gollow Lecture: Dreaming of health equality. Addressing the unacceptable predicament! The use of evidence! Making a difference to address STI and BBV control for Australia's first peoples. Giving Voice to those who need their voice to be heard!

Wilson DP. The changing profile of Australia's HIV epidemic.

Wilson DP. Findings from the Annual Surveillance Report on HIV, viral hepatitis and sexually transmissible infections in Australia 2011.

Wright ST, Carr A, Woolley I, Giles M, Hoy J, Cooper DA, Law MG. CD4 Cell Responses to combination antiretroviral therapy in patients starting therapy at high CD4 cell counts.

Zablotska I. Antiretroviral treatment as prevention: Is it a serious change in HIV prevention among gay men?

Zhang L, Chow EPF, Wilson DP. What is the potential for bisexual men in China to act as a bridge of HIV transmission to the female population? Behavioural evidence from a systematic review and meta-analysis.

10th Australasian Sexual Health Conference (Canberra, September) Arizmendi C, Worth H, Smith A, Ah Chee D, Kaldor J, Bryant J, Pitts M, Ward J. Hearing from young Aboriginal and Torres Strait Islander people about their sexual health and wellbeing. Bowring A, Gouillou M, Guy R, Kong FYS, Van Gemert C, Goller JL, Harvey C, McNamee K, Bateson D, Wardle R, Stephens A, Hocking JS, Pirotta M, Heal C, Brett T, Merritt T, Donovan B, Hellard ME on behalf of the ACCESS Collaboration. Chlamydia repeat testing and positivity rates at general practice and family planning clinics in Australia, 2008-2009. Dimech W, van Gemert C, Stoové M, Bergeri I, Kong F, Boyle D, Guy R, Hellard M on behalf of the ACCESS collaboration. A laboratory network for sentinel surveillance of Chlamydia: results after 2 years of the access laboratory network (2008-2009).

Donovan B. Syphilis in HIV positive people. Syphilis and HIV Joint Symposia. Donovan B, Ali H, Guy RJ, Grulich AE, Regan DG, Wand H, Fairley CK. A national program with a national impact: Quadrivalent HPV vaccination and genital warts in Australia, 2004-2010. Garton L, Guy R, Silver B, Taylor-Thompson D, Hengel B, Knox J, McGregor S, Wand H, Rumbold A, Ward J, Kaldor J on behalf of the STRIVE Investigator Group. Implementation of Australia's Largest Cluster Randomised Trial in Aboriginal Health: Progress toward a Goal. Guy R, Garton L Taylor-Thompson D, Silver B, Hengel B, Knox J, McGregor S, Rumbold A, Ward J, Kaldor J on behalf of the STRIVE Investigator Group. The 2010 Baseline Prevalence Study Conducted by the STRIVE Trial.

Guy R, Wand H, Read P, Kenigsberg, Knight V, McNulty A. SMS reminders increase re-testing for repeat chlamydial infection in heterosexuals at a sexual health clinic.

Harrod ME, Graham S, Wand H, Ward J. Gaps in sexually transmissible and blood borne viral infection reporting: What are the implications for closing the gap? Hengel B, Mein J, Fagan P, Ward J, Kaldor J, Guy R on behalf of the STRIVE Investigator Group. Health Service Utilisation Patterns in FNQ Remote Communities: Implications for STI Testing. Hocking JS, Temple-Smith M, Poznanski S, Vaisey A, Walker J, Guy R, Low N, Donovan B, Gunn J, Law M, Kaldor J, Fairley CK, on behalf of the ACCEPt Consortium. Australian Chlamydia Control Effectiveness Pilot - Preliminary Results from a Trial of Chlamydia Testing in General Practice.

Hui B, Gray RT, Wilson DP, Ward J, Smith A, Philp D, Hocking J, Regan D. The importance of mobility in sustaining high STI prevalence in remote Indigenous communities.

Jeoffreys NJ, Read PJ, Huynh S, **Donovan** B, Gilbert GL. High levels of azithromycin resistant syphilis in Sydney.

Liu B, Guy R, Donovan B, Kaldor J. Characteristics associated with repeat *Chlamydia trachomatis* notifications in Australian women.

Machalek DA, Poynten IM, Jin F, Hillman RJ, Templeton DJ, Tabrizi SN, Garland SM, Fairley CK, Grulich AE. A systematic review of the natural history of human papillomavirus infection and associated neoplastic lesions in homosexual men.

McGregor S, Guy R, Garton L, Silver B, Taylor-Thomson D, Hengel B, Knox J, Wand H, Kaldor J, Ward J, Rumbold A, on behalf of the STRIVE Investigator Group. Routine STI testing patterns in remote health services in the Northern Territory, Far North Queensland and

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PRESENTATIONS

Western Australia.

Read PJ, Wand H, Guy R, Bourne CP, McNulty AM. Are Asian men who have sex with men (MSM) a higher risk of HIV and STI infection?

Silver B, Taylor-Thompson D, **Garton L**, Hengel B, Knox J, Rumbold A, **McGregor S**, **Guy R**, **Kaldor J**, **Ward J** on behalf of the STRIVE Investigator Group. Use of quality improvement strategies to address endemic rates of STI in remote primary health care services.

Watchirs Smith L, Hillman R, Ward J, Whiley D, Causer L, Skov S, Donovan B, Kaldor J, Guy R. Point-of-care tests for the detection of *N. Gonorrhoeae*; a systematic review of operational characteristics and performance.

Whiley DM, **Kaldor J**, Jacob K, Sloots TP, Tabrizi S, **Ward J**, **Donovan B**, Anderson D, Fairley C, **Guy R**. The Influence of Organism Load on the Sensitivity of Point-Of-Care Tests for Chlamydia.

Australian Epidemiological Association Conference (Perth, September)
Gidding HF, Dore GJ, Law MG, on behalf of the ACHOS Investigator team. HCV treatment outcomes in Australian clinics.
Ward J. Combining Aboriginal Community Control Principles and Epidemiological Research: Shifting Sands or Mountains.
Ecopathogenesis of Chlamydia in the human reproductive tract meeting (Baltimore, October)

Wilson DP. Effect of the inflammatory response upon the in vivo competition between two chlamydial variants in the guinea pig model of inclusion conjunctivitis - a combined biological and mathematical modeling approach.

New Zealand Sexual Health Society Conference, Auckland October

Ward J. Making a difference to the lives of Australia's First Peoples through research. **Ward J.** Whose binge drinking problem is it? Linkages to STI Control.

AusAID ALA Short Intensive Professional Program in HIV (Sydney, October) Wilson DP. HIV epidemiology in Australia.

Australasian Professional Society on Alcohol and other Drugs (APSAD) (Hobart, November)

Deacon RM, Topp L, Wand H, Day CA, Rodgers C, Haber PS, van Beek I, Maher L. Correlates of susceptibility to hepatitis B among people who inject drugs in Sydney, Australia.

Higgs P, Kelsall J, Dietze P. Health needs of older opiate users.

Islam M, Topp L, Day CA, Conigrave

KM, White A, Haber PS. Sex and drugs in inner-city Sydney: Sexual risk behaviours and barriers to safe sex among drug users accessing low-threshold primary healthcare.

Islam M, White A, Day CA, Topp L, Conigrave KM, Reid SE, Grummett S, Haber PS. Assessing the model of care and service utilisation of a nurse led lowthreshold primary health care in a needle syringe programme setting in inner-city Sydney.

Papanastasiou C, **Higgs P**, Dietze P. The prevalence and predictors of hepatitis C among a group of young injectors in Melbourne.

Topp L, Day C, Wand H, Deacon R, van Beek I, Haber P, Shanahan M, Rodgers C, Maher L, on behalf of the Hepatitis Acceptability and Vaccine Incentives Trial (HAVIT) Study Group. A randomised controlled trial of contingency management to increase hepatitis B vaccination uptake and completion among people who inject drugs in Australia.

The Potential Impact of Expanded Access to Treatment for HIV Prevention in Sub-Saharan Africa (Stellenbosch, South Africa, November)

Wilson DP. Motivation for what are the best roles for ART during an era of heterogeneous and diverging HIV epidemics and constrained resources?

62nd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD) (San Francisco, November)

Fried M, Buti M, **Dore GJ**, Flisiak R, Ferenci P, Jacobson I, Marcellin P, Manns M, Nikitin I, Poordad F, Sherman M, De Smedt S. TMC435 in combination with peginterferon and ribavirin in treatment –naïve HCV genotype 1 patients: Final analysis of the pillar phase IIB study.

NIAID STI Cooperative Research Centers (Chapel Hill, USA, November) Wilson DP. Effect of the inflammatory response upon the in vivo competition between two chlamydial variants in the guinea pig model of inclusion conjunctivitis - a combined biological and mathematical modeling approach.

IUSTI (New Delhi, November)
Donovan B. Sex workers.
Donovan B. Prison sex.

LabKey User Conference (Seattle, November) Schafer T, Jacka B, Marks P, Dore **GJ**, **Applegate T**, **Shaw I**, LabKey: An Australasian perspective.

Joint National Policy Forum on Male Circumcision for HIV Prevention. (Port Moresby, November)

Gray RT. Estimating the Impact of Male Circumcision on the HIV Epidemic in PNG. **Kaldor J**. Male circumcision in the context of other emerging strategies in the Asia-Pacific region.

Republic of Armenia National Ministry of Health AIDS Conference (Yerevan, November)

Wilson DP. Surveillance, evaluation and situational analysis on HIV/AIDS, 2011.
Wilson DP. National Strategic Plan HIV & AIDS 2012-2016, The Republic of Armenia.

Wilson DP. Antiretroviral therapy for treating HIV-infected people.
Wilson DP. Treatment as prevention and other biomedical prevention strategies: international evidence for consideration in the Republic of Armenia.

Armenia National AIDS Team Workshop (Yerevan, November)

Wilson DP. National Strategic Plan HIV & AIDS 2012-2016, The Republic of Armenia.

HIV/STI surveillance forum in NSW (Sydney November)

Wilson DP. Modelling the impact of biomedical prevention strategies on the HIV epidemic.

2011 Preventing Cervical Cancer Conference (PCC2011): Integrating Screening and Vaccination (Melbourne, November)

Kaldor J. Research priorities for cervix cancer in low resource settings.

18th Conference on Retroviruses and Opportunistic Infections (CROI) (Boston, February)

Dazo C, Fahey P, Puls R, Winston A, Boesecke C, Avhingsanon A, Amin J, Rooney JF, Cooper DA, Emery S and the Altair Study Group. Significant decline in glomerular filtration rate is observed in therapy naïve HIV-positive subjects commencing ritonavir-boosted atazanavir (r/ATV), compared to either efavirenz (EFV) or zidovudine/abacavir (ZDV/ABC) all with tenofovir (TDF)/emtricitabine (FTC) after 48 weeks, a randomised controlled study.

Koelsch K, Boesecke C, Fahey P, Danta M, Bailey M, Baker D, Finlayson R, Bloch M, Cooper D, Emery S and PINT study group. Raltegravir in Combination With Tenofovir and Emtricitabine During Primary and Chronic HIV Infection: Impact on HIV RNA and DNA in Peripheral Blood and Gut Mucosal Tissue.

Murray JM, McBride K, Gelgor L, Zaunders J, Amin J, Marks K, Mische C, Cooper DA, Emery S, Kelleher AD. The dynamics of HIV RNA and HIV DNA in the presence of an integrase inhibitor containing regimen in treatment naïve patients.

Purcell DF, Lewin S, Byakwaga H, French M, Kelleher A, Amin J, Haskelberg H, Kelly M, Cooper DA, Emery S on behalf of the CORAL Study Group. No Correlation Between Microbial Translocation, Immune Activation And Low Level HIV Viraemia In HIV Infected Individuals With Poor Cd4+ T-Cell Recovery Despite Suppressive Art. Swaminathan S, Suzuki K, Seddiki N, Kaplan W, Cowley M, Hood C, Clancy J, Murray D, Cooper DA, Kelleher AD. Differential Regulation of the Let-7 Family of miRNAs in CD4+ T cells in HIV-1 infection Potentially Impacts on Disease Progression by Altering IL-10 Expression.

Keystone Mechanism and Biology of Silencing (Monterey, March)
Hood, C. siRNA mediated silencing of

15th International Workshop on HIV
Observational Databases (Prague, March)
Kjaer J, Hillebregt MMJ, Brandt RS,
Fontas E, Balestre E, McManus H, Fanti I,
Delforge M, Rickenbach M for the D:A:D
study group. How to identify patients
enrolled in multiple cohorts, exemplified
by the D:A:D study.

Prandt RS, Biekenbach M, Hillebregt

Brandt RS, Rickenbach M, Hillebregt MMJ, Fontas E, Geffard S, **McManus H**, Fanti I, Delforge M, Ledgerber B, Kjaer J for the D:A:D study group. Improving data quality in HIV cohort collaborations – exemplified by the D:A:D study.

46th Annual Meeting of the European Association for the Study of the Liver (EASL) (Berlin, March-April) Alavi M, Grebely J, Gillman AB, Micallef M, Batey R, Honey C, Bath N, Loveday S, Day C, Dunlop A, Wodak A, Balcomb AC, Abbott P, Rodgers C, Weltman MD, Haber P, Dore GJ on behalf of the ETHOS study group. Willingness to receive treatment for chronic hepatitis C virus infection among injecting drug users in the opioid substitution setting: The ETHOS Study. Ali RJ, Roberts SK, Ray J, Sievert W, McCaughan G, Weltman M, Crawford D, Cheng W, Rawlinson W, Rhommes J, Rizkalla B, Yoshihara M, Dore GJ, Matthews GV on behalf of the CHARIOT Study Group. Early on-treatment plasma ribavirin concentrations are associated with on-treatment anaemia and treatment outcome in chronic hepatitis C genotype 1 patients.

Feld JJ, Grebely J, Applegate T,
Matthews GV, Hellard M, Suppiah V,
Sherker A, Petoumenos K, Shaw I, Yeung
B, Rawlinson W, Booth D, Kaldor JM,
George J, Lloyd AR, Dore GJ on behalf
of the ATAHC Study Group. IP-10 is
associated with early viral kinetics, but
not sustained virological response during
treatment for recent hepatitis C virus
infection.

Gaudieri S, **Applegate T**, Tshochner M, Plauzolles A, Pfafferott K, Lucas M, Diepolder H, Ulsenheimer A, Mallal S,

Grebely J, Hellard M, Lloyd A, Kaldor JM, Dore GJ, Matthews GV on behalf of the ATAHC Study Group. Signature resistance mutations to directly acting antiviral agents occur at low prevalence in treatment naïve subjects with recently acquired hepatitis C infection.

Grebely J, Alavi M, Haber P, Day C, Matthews GV, van Beek I, Walsh N, Yeung B, Petoumenos K, Dolan K, Spelman T, Kaldor JM, Dore GJ, Hellard M on behalf of the ATAHC Study Group. Impact of treatment on injecting drug use behaviors during recent HCV infection: the ATAHC study.

Grebely J, Matthews GV, Hellard M, Suppiah V, Petoumenos K, Applegate T, Yeung B, Rawlinson W, Feld JJ, Lloyd A, Booth D, Kaldor J, George J, Dore GJ on behalf of the ATAHC Study Group. IL28B genotype has variable influence on early viral kinetics, but no influence on sustained virological response during treatment for recent hepatitis C virus infection. Sacks-Davis R, Aitken C, Higgs P, Moneer S, Flynn J, Suppiah V, Tracy L, Ffrench R, Bowden D, Drummer H, George J, Bharadwaj M, Hellard M. Hepatitis C virus-specific cellular immunity does not protect against future HCV infection in anti-hcv negative injecting drug users. Sacks-Davis R, Daraganova G, Aitken C, Higgs P, Tracy L, Bowden D, Robins G, Pattison P, Grebely J, Barry A, Hellard M. Molecular epidemiology of hepatitis C in a social network of young people who inject

22nd International Conference
International Harm Reduction
Association (IHRA) (Beirut, April)
Banwell C, Dance P, Olsen A, Byrne J.
Are women who use drugs interested
in their personal health? Hormones,
hypogonadism and hepatitis C related
health among people who inject drugs.
Couture MC, Page K, Sansothy N, Stein
E, Sichan K, Maher L. Occupational and
disease risks among women engaged in
sex work in Phnom Penh, Cambodia: The

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vulnerability of freelance sex workers. Ham M, **Higgs P**, Sacks-Davis R, Hellard M. "Hepatitis – it's a dirty sounding word …" Alcohol in the lives of people living with hepatitis C.

Higgs P, Kelsall J, Rocks C. "They don't know how to treat us": The health needs of older opiate using Australians.

Iversen J, Wand H, Topp L, Maher L. High syringe coverage among Needle Syringe Program (NSP) attendees in Australia.

Newland J, Harris M, Deacon RM, Treloar C, Maher L. Social network influences on hepatitis C seroconversion risk.

Page K, Couture MC, Sansothy N, Stein E, Sichan K, Maher L. Violence, risk and disease among young women engaged in sex work in Phnom Penh, Cambodia: The YWHS Study.

White B, Bates A, Enriquez J, Park JN, Maher L. Respondent driven sampling vs. community outreach – recruitment of people who inject drugs to a longitudinal study in Sydney, Australia.

National Institute on Drug Abuse (NIDA) International Forum (Miami, June)
Maher L, Phlong P, Mooney-Somers J,
Keo S, Stein E, Couture MC, Page K (on behalf of the Young Women's Health
Study Collaborative). Amphetamine-type stimulant use and HIV/STI risk behaviour among young female sex workers in Phnom Penh, Cambodia.

20th World Congress for Sexual Health (Glasgow, June)

Prestage, GP. Reasoning Risk Reduction. Prestage GP, Down I, Brown G, Hurley M. Acting on Desire: The Role of Erectile Dysfunction Medication.

40th Annual Scientific Meeting of the Society of Academic Primary Care (Bristol, June)

Temple-Smith M, Poznanski S, Vaisey A, Wood A, Walker J, Hocking J, Low N, Donovan B, Gunn J, Law M, Kaldor J, Guy R, Fairley CK. Chlamydia screening: managing barriers to a complex intervention in the general practice setting

International HIV and Hepatitis Virus Drug Resistance Workshop (Los Cabos, Mexico, June)

Applegate T, Gaudieri S, Pham S, White P, Grebely J, Hellard M, Suppiah V, George J, Lloyd A, Dore GJ, Matthews GV. Impact of host and viral characteristics on treatment outcome within hepatitis C transmission clusters in HIV positive individuals with recently acquired HCV. Gaudieri S, Applegate T, Tschochner M, Plauzolles A, Pfafferott K, Lucas M,

Diepolder H, Ulsenheimer A, Mallal S, Grebely J, Hellard M, Lloyd A, Kaldor J, Dore GJ, Matthews GV. Signature resistance mutations to directly acting antiviral agents occur at low prevalence in treatment naïve subjects with recently acquired hepatitis C infection.

6th IAS Conference on HIV pathogenesis, treatment and prevention (Rome, July) Couture MC, Sansothy N, Stein E, Sichan K, Evans J, Kaldor J, Palefsky J, Page K, Maher L on behalf of the Young Women's Health Study Collaborative. Human papillomavirus infection prevalence and associations with HIV among young women engaged in sex work in Phnom Penh, Cambodia.

Couture MC, Sansothy N, Stein ES, Evans J, Sichan K, Maher L, Page K on behalf of the Young Women's Health Study Collaborative. Occupational and disease risks among women engaged in sex work in Phnom Penh, Cambodia: New challenges for HIV prevention.

Evans J, Couture MC, Stein E, Maher L, Sansothy N, Page K on behalf of the Young Women's Health Study Collaborative. Biomarker validation of recent unprotected sexual intercourse in prospective study of female sex workers in Phnom Penh, Cambodia using a rapid PSA test

Koelsch K, Zaunders J, Seddiki N, Bailey M, Marks K, Xu Y, Danta M, Cooper D, Kelleher A for the PINT Study Group. Reconstitution patterns of resident and circulating Gut-homing CD4+ T cells in HIV-1-infected individuals during antiretroviral therapy initiated in either primary or chronic infection.

Lee LS, Lim P-L, Fahey P, Yunihastuti E on behalf of TAHOD. Predictors of nevirapine and efavirenz toxicity in HIV-infected patients: Updated analysis from the TREAT Asia HIV Observational Database (TAHOD).

Maher L, Phlong P, Mooney-Somers J, Kien SP, Couture MC, Sansothy N, Bates A, Page K on behalf of the Young Women's Health Study Collaborative. Safe sex in unsafe spaces: Negotiating the sex work risk environment in Phnom Penh, Cambodia. Page K, Couture MC, Sothy NS, Stein ES, Sichan K, Maher L on behalf of the Young Women's Health Study Collaborative. Violence, risk and disease among young women engaged in sex work in Phnom Penh, Cambodia: The YWHS Study. Page K, Maher L, Kaldor J, Phal S on behalf of the Young Women's Health Study Collaborative. Policy, pride and prejudice: The impact of anti-trafficking law on HIV risk and prevention among female sex workers in Phnom Penh, Cambodia. Pedrana A, Stoove M, Bowring A, Hellard M, Guy R. "Easy Access" Communitybased HIV Testing Services for Gay Men: A Systematic Review.

Pedrana A, Stoove M, Bowring A, Hellard M, **Guy R**. Accepting the good with the bad": Barriers and facilitators of community-based HIV testing services for gay men: A systematic review. **Seddiki N, Phetsouphanh C**,

Swaminathan S, Rao S, Li J, Sutcliffe E, Xu Y, Cooper DA, Zaunders J, Kelleher A. The Blimp-1/IL-2/miR-9 axis modulates the balance between activated and regulatory T cell function and is differentially regulated in HIV infection. Stein ES, Couture MC, Sansothy N, Evans J, Kaldor J, Maher L, Page K on behalf of the Young Women's Health Study Collaborative. High acceptance and uptake of GARDISIL® HPV preventive vaccine in a cohort of young, female, sex and entertainment workers in Phnom Penh,

Stein ES, Evans J, Sansothy N, Sichan K, Couture MC, Maher L, Mooney-Somers J. Page K. on behalf of the Young Women's Health Study Collaborative. High incidence of pregnancy and poor contraceptive utilisation in a cohort of young, female sex and entertainment workers in Phnom Penh, Cambodia. The IeDEA Pediatric Working Group, Asia-Pacific, Central Africa, East Africa, Southern Africa, West Africa (Kariminia A member of working group). Programmatic and clinical management practices in the International Epidemiologic Databases to Evaluate AIDS (IeDEA) Pediatric Group: Results from a multiregional site

Zhou J, Tanuma J, Chaiwarith, KC Lee CKC, **Law MG**, Lim PL on behalf of The TREAT Asia HIV Observational Database. Loss to follow-up in HIV–infected patients under clinical care in the Asia-Pacific region.

3rd International Workshop on HIV Pediatrics (Rome, July)

Bunupuradah T, Puthanakit T, **Fahey P**, **Kariminia A**, Yusoff NKN, Khanh TH, Sohn A, Chokephaibulkit K, Lumbiganon P, Hansudewechakul R, Razali K, Kurniati N, Huy BV, Sudjaritruk T, Kumarasamy N, Fong SM, Saphonn V, **Ananworanich J** on behalf of TApHOD. Second-line highly active antiretroviral therapy in Asian HIV-infected children.

13th International Workshop on Adverse Drug Reactions and Comorbidities in HIV (Rome, July) Cordery DV, Humphries A, Amin J, Kelleher AD, Emery S, Cooper DA on behalf of the STEAL study group. The influence of HLA supertype on thymidine analogue induced body composition changes in STEAL. Australian Injecting and Illicit Drug Users League (AIVL) forum on Older Opiate Users & Hepatitis (Canberra, July)

Banwell C, Dance P, **Olsen A**, Byrne J. Hormones, hypogonadism and hepatitis C related health among people who inject drugs.

19th Conference of the International Society for Sexually Transmitted Diseases Research (Québec City, July) Graham S, Guy R, McManus H, Giele C, El-Hayek C, Kwan K, Dyda A, Su JY, Wand H, Donovan B, Ward J. Trends in chlamydia and gonorrhoea notifications in Aboriginal and non-Indigenous Australians.

Guy RJ, Hocking J, Low N, Ali H, Bauer H, Walker J, Klausner J, Donovan B, Kaldor JM. Interventions to Increase Retesting for Repeat Chlamydial Infection: a Systematic Review and Meta-analysis. Guy RJ, Wand H, Read P, Kenigsberg A, Knight V, McNulty AM. SMS reminders increase re-testing for repeat chlamydia infection in heterosexuals at a sexual health clinic.

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Lewis L, Drummond F, Bourne C, Ramanathan V, Hocking J, Wand H, Donovan B, Kaldor JM, Guy RJ. Optimising clinical systems to increase HIV/STI testing in gay men: the eTEST Project.

Liu B, Kaldor J, Donovan B, Guy R, Wand H, Hocking J. Trends in the incidence of hospitalisation for chlamydia-related sequelae among women.

Read TRH, Hocking J, Gurrin L, Chen MY, Donovan B, Bradshaw CS, Fairley CK. Continued decline in genital warts three years after introduction of quadrivalent human papillomavirus vaccine program. Silver B, Knox J, Smith K, Ward J, Boyle J, Guy R, Kaldor J, Rumbold A.The Detection and Management of Pelvic Inflammatory Disease in Aboriginal Women in Central Australia: Challenges of a Remote High Prevalence Setting. Templeton DJ, Prestage GP, IM Poynten, Jin F, Healey LM, Zablotska I, Grulich AE. Prevalence, incidence and predictors of sexual assault in the community-based HIM cohort of Sydney homosexual men. Walker J, Fairley CK, Bradshaw CS, Tabrizi SN, Chen MY, Twin J, Taylor N, **Donovan** B, Kaldor JM, Hocking JS. The incidence of Mycoplasma genitalium in a cohort of young Australian women. Walker J, Hocking JS, Fairley CK, Tabrizi

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10th International Congress on AIDS in Asia and the Pacific (Busan, Korea, August)

Nguyen TH, Nghiem VV, Pham H, Quatermaine M, Maxtone-Graham J, Higgs P. Using photos as an evaluation tool in HIV prevention programs: Lessons from the Dove Club Project in Hanoi. Pham H, Reddell S, Higgs P. Men who have sex with men and women in Hanoi, Vietnam.

Schneider K, Kerr CC, Hoare A, Wilson DP. Expected epidemiological impacts of introducing an HIV vaccine in Thailand: a model-based analysis.

Zhang L, Chow EFP, Wilson DP. Increasing Trend of Condom Use Rate among Men Who Have Sex with Men in China.

Zhang L, Chow EFP, Wilson DP. Rapid Increasing HIV Prevalence among Men Who Have Sex with Men in China: Implications from a Meta-analysis.

18th International Symposium on Hepatitis C and Related Viruses (Seattle, August)

Applegate T, Gaudieri S, Pham S, White P, Grebely J, Hellard M, Suppiah V, George J, Lloyd A, Dore GJ, Matthews GV. Impact of host and viral characteristics on treatment outcome within hepatitis C transmission clusters in HIV positive individuals with recently acquired HCV. Gaudieri S, Applegate T, Tschochner M, Plauzolles A, Pfafferott K, Lucas M, Diepolder H, Ulsenheimer A, MallalS, Grebely J, Hellard M, Lloyd A, Kaldor J, Dore GJ, Matthews GV. Signature resistance mutations to directly acting antiviral agents occur at low prevalence in treatment naïve subjects with recently acquired hepatitis C infection.

2nd International Symposium on Hepatitis Care in Substance Users (Brussels, September) Alavi M, Grebely J, Gillman AB, Micallef M, Batey R, Honey C, Bath N, Loveday S,

Abbott P. Rodgers C. Weltman MD, Haber P, **Dore GJ** on behalf of the ETHOS study group. Willingness to receive treatment for chronic hepatitis C virus infection among injecting drug users in the opioid substitution setting: The ETHOS Study. Alavi M, Grebely J, Matthews G, Petoumenos K, Yeung B, Lloyd A, Hellard M, van Beek I, **Maher L**, **Kaldor J**, Haber P, Dore GJ on behalf of the ATAHC Study Group. Impact of pegylated interferon alfa-2a treatment on depression during recent HCV infection: the Australian Trial in Acute Hepatitis C (ATAHC). Balcomb AC, D'Aquino F, Dyer R, Lynch TF, Grebely J, Alavi M, Dore GJ. Clinic 96: A community based model for hepatitis C treatment service in regional Australia -Effectively reaching the more difficult to access clients.

Day C, Dunlop A, Wodak A, Balcomb AC,

Islam MM, White A, Day CA, Topp L, Conigrave KM, Reid SE, Grummett S, Haber PS. Linkage into specialist hepatitis C treatment services of injecting drug users attending needle syringe programme-based primary healthcare centre.

Keats J, Hazelwood S, Everingham H, Alavi M, Grebely J, Tierney R, Dunlop A on behalf of the ETHOS Study Group. Treating chronic hepatitis C infection in opioid substitution treatment settings: experience of the Newcastle pharmacotherapy service. Maynard MA, **Grebely J**, DeLong A, Treloar C, Taylor LE. Barriers to the treatment of hepatitis C virus infection among people with HIV/HCV coinfection in Rhode Island, United States. Petersen J, Alavi M, Micallef M, Grebely J, Weltman M. A nurse-led model for the assessment of chronic HCV infection in current and former injecting drug users. Sacks-Davis R, Daraganova G, Aitken C, Higgs P, Tracy L, Bowden D, Robins G, Pattison P, Grebely J, Barry A, Hellard M. Molecular epidemiology of hepatitis C and social network research provide insight into transmission pathways in people who inject drugs.

Treloar C, Hull P, **Grebely J**, **Dore GJ**. Knowledge and barriers associated with assessment and treatment for hepatitis c virus infection among injecting drug users: a greater need for information on self-care strategies.

51st Interscience Conference on Antimicrobial Agents and Chemotherapy (ICAAC) (Chicago, September) Else L, Jackson A, Puls R, Hill A, Fahey P, Lin E, Amara A, Siccardi M, Emery S, Khoo S, Back D, Boffito M. Pharmacokinetics (PK) of lamivudine (3TC), and 3TC-triphosphate (3TC-TP) following administration of 3TC 300

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mg and 150 mg once daily (od) to HIV-negative volunteers.-in the ENCORE2 Study.

27th International Papillomavirus Conference and Clinical Workshop (Berlin, September)

Conway EL, Stein AN, Smith A, Hocking JS, Brotherton JM, **Regan DG**, **Law MG**, **Jin F**, **Grulich AE**. Estimating cancer burden: current male and female vaccination cohorts

Grulich AE, Poynten IM, Jin F, Hillman R, Templeton DJ, Fairley CK, Garland SM, McCaffery K on behalf of the SPANC Research Team. Adverse effects of anal cancer screening strategies in homosexual men.

Jin F, Poynten IM, Templeton DJ, Prestage G, Donovan B, Fairley CK, Garland SM, Pawlita M, Grulich AE, Waterboer T. Type-specific Human Papillomavirus (HPV) L1 antibody seroreversion in homosexual men. Jin F, Waterboer T, Poynten IM, Templeton DJ, Prestage G, Donovan B, Fairley CK, Garland SM, Pawlita M, Grulich AE. Non-vaccine preventable high-risk human papillomavirus (HPV) infection in homosexual men.

Poynten IM, Jin F, Templeton DJ, Prestage G, Donovan B, Pawlita M, Fairley CK, Garland SM, Grulich AE, Waterboer T. Prevalence, incidence and risk factors for HPV16 seropositivity in homosexual men.

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23rd Annual Conference of the Australasian Society for HIV Medicine (Canberra, September)
Bavinton B, O'Dwyer M, Rose T,
Mckechnie ML, Prestage G, Zablotska
IB. Mapping of the Sydney gay
community: preliminary findings about the structure and size of gay community networks and groups.

Bavinton B, Singh N. Sexual behaviour and HIV risk in men who have sex with men and transgender people in Fiji.

Boyd M. Encore3 - LPV/r dose reduction PK study.

Carey C, Courtney-Rodgers D, Kelly M, Wyman N for the INSIGHT STALWART Study Group. Results of the follow-up stage of the STALWART study. Carey D, Wand H, Pett SL, Bloch M,

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MacRae K, Beileiter K, Ray J, Boyd M,

Cooper DA, Emery S. Pharmacokinetics,

efficacy and safety of two dosing strategies of raltegravir plus atazanavir in antiretroviral-experienced HIV-infected adults (SPARTA).

Causer L, McGregor S, Kaldor J. The Field Research Training Program (FRTP): A new model for supporting HIV research capacity building in developing countries. Cordery DV, Martin A, Amin J, Kelleher AD, Emery S, Cooper DA. The influence of HLA supertype on thymidine analogue induced body composition changes in the STEAL randomised clinical trial. Gray RT, Gold J, Karim M, Jenkinson R, McBryde E, Wilson DP, Hellard ME. Concurrency and Sexual Partnership Dynamics among a Sample of Young Music

McGrath P, Prestage G, Jin F, Hillman R, Templeton DJ, Acraman B, Grulich A, Poynten IM. Early indicators of participant compliance and retention in a longitudinal study of anal cancer in gay men.

Festival Attendees.

Middleton MG, Mlambo E, Wilson DP, McDonald AM for the National Bloodborne Virus and Sexually Transmissible Infections Surveillance Committee. Differences in trends in newly diagnosed HIV infection in Australia by region of birth, 2002–2010.

Pham DQ. Transmitted drug resistance among recently HIV infected patients.

Prestage GP, Bavinton B, Bradley J,
Clementson C, Cooper C, Davies G, Down
I, Dowsett G, Duffin R, Greirson J, Grulich
AE, Honnor G, Hurley M, Keen P, Kennedy
M, Kidd P, Lake R, Lyons A, Maddedu D,
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N, Schema L, Scott M, Scott S, Slavin S,
Smith A, Templeton D, Ward J. The Term

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Prestage GP, Down I, Brown G, Hurley
M. Acting on Desire: The Role of Erectile
Dysfunction Medication.

Reyes JF, Wilson DP. The relationship between adherence to class-specific antiretroviral therapy and HIV drug resistance mutations.

Schneider K. Expected epidemiological impacts of introducing an HIV vaccine in Thailand: A model-based analysis.

Seneviratne N, Puls R, Humphries
A, Haskelberg H, Petoumenos K,

Courtney-Vega K, Emery S. Assessing site performance in a multinational clinical

performance in a multinational clinical trial.

Tynan A, Vallely A, Kelly A, Kupul M, Geita L, Law G, Milan J, Siba P, Kaldor J, Hill P. Vasectomy as a proxy: Extrapolating Health System Lessons to Male Circumcision as an HIV Prevention Strategy in Papua New Guinea.

Zablotska I, Prestage G, Holt M, Poynten M, Guy R, Grulich A. Australian gay men who have used non-occupational post-exposure prophylaxis of HIV (PEP) and in need for effective HIV prevention methods.

Zhou J, Tanuma J, Chaiwarith KC, Lee CKC, **Law MG**, Lim PL on behalf of The TREAT Asia HIV Observational Database. Loss to follow-up in HIV-infected patients under clinical care in the Asia-Pacific region.

10th Australasian Sexual Health Conference (Canberra, September) Allan W, McCann L, McNulty A, Read PJ. Contract tracing using provider referralhow difficult is it?

Ali H, Donovan B, Kaldor J, Liu B, Hocking J, Ward J, Bourne C, Guy R. Developing Chlamydia prevention indicators for Australia – NSW as a case study.

Bourne C, **Zablotska I**, Williamson A, Calmette Y, **Guy R**. Gay men prefer partner notification by short message service (SMS) rather than e-postcards: a webbased evaluation.

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of human papillomavirus infection and associated neoplastic lesions in homosexual men.

Martin L, Knight V, **Read PJ**, McNulty A. Patient preferred method of obtaining STI and/or HIV results from Sydney Sexual Health Centre (SSHC).

McKechnie ML, Bavinton BR, Zablotska IB. Understanding of norms regarding sexual practices among gay men.
McNulty A, Wand H, Guy R, Donovan B.
Men who have sex with men (MSM) and are Injecting Drug Users (IDU): Predictors of prevalent sexually transmissible infections (STIs).

Poynten IM, Jin F, Hillman R, Templeton DJ, Fairley CK, Garland SM, McCaffery K, Grulich AE on behalf of the SPANC Research Team. Adverse effects of anal cancer screening strategies in homosexual men.

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JS, on behalf of the ACCEPt Consortium.
A multifaceted intervention to increase
chlamydia testing in Australian general
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Read PJ, Williamson A, Knight V, Allan W, Bourne C, McNulty A. Which Men who have sex with men test for STIs at Mardi Gras testing tent?

Read PJ, Martin L, McNulty A. Would you self swab for STIs in a unisex toilet? Richters J, Coombs J, **Templeton DJ**. Sexual backgrounds of imprisoned male sex offenders.

Silver B, Taylor-Thompson D, Garton L, Hengel B, Knox J, Rumbold A, **McGregor S**, **Guy R**, **Kaldor J**, **Ward J** on behalf of the STRIVE Investigator GroupUse of quality improvement strategies to address endemic rates of STI in remote primary health care services.

Tilley DM, Hristov S, Sharp NC, **Templeton DJ**, O'Connor CC. Pap smears among women in residential drug rehabilitation.

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AIDS Vaccine 2011 Conference (Bangkok September)
Munier CML, Ip S, Bailey M, Xu Y, Liu S, Denyer G, Cooper DA, Kent S, Zaunders J, Kelleher AD. Primary immune responses to vaccinia virus vaccination: the role of cytotoxic effector CD4+ T cells in the generation of human T cell memory.

Annual Meeting of the NIAID STI Cooperative Research Centers (Chapel Hill USA, November) Craig A, Rank RG, Bowlin AK, Wang Y,

Wilson DP. Mathematical modelling of the *in vivo* competition between chlamydial variants.

Australasian Professional Society on Alcohol and other Drugs (APSAD) (Hobart, November) Deacon RM, Topp L, Wand H, Day CA,

Deacon RM, **Topp L**, **Wand H**, Day CA, Rodgers C, Haber PS, van Beek I, **Maher L**. Knowledge, acceptability and barriers to hepatitis B vaccination among people who inject drugs.

3rd International Conference on Infectious Disease Dynamics (Epidemics3), (Boston, November) Korostil I, Peters G, Philp D, Law M, Regan D. Evaluation of the impact of vaccination using an efficient forwardsimulation calibration methodology.

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performance in a multinational clinical
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62nd Annual Meeting of the American Association for the Study of Liver Diseases (AASLD) (San Francisco, November)

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IUSTI (New Delhi, November) Ali H, Micallef J, Donovan B. Global Epidemiology of Human Immunodeficiency Virus (HIV) Infection.

75th Anniversary National Health and Medical Research Centre Scientific Symposium (Canberra, November) Grebely J, Petoumenos K, Hellard M, Matthews GV, Suppiah V, Applegate T, Yeung B, Marks P, Rawlinson W, Lloyd A, Booth D, Kaldor J, George J, Dore GJ for the ATAHC Study Group Spontaneous and treatment-induced clearance of recent hepatitis C virus infection.

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ABOUT THE KIRBY INSTITUTE

The Kirby Institute was launched in 2011. It was formerly known as the National Centre in HIV Epidemiology and Clinical Research (NCHECR), which was established in 1986 by the Australian Government to fulfil a number of key roles in Australia's fight against HIV/AIDS. The Kirby Institute is affiliated with the Faculty of Medicine, University of New South Wales.

The Kirby Institute's primary functions relate to the co-ordination of national surveillance programs, clinical research and clinical trials. While its original focus was exclusively on HIV/AIDS, the Kirby Institute's work has expanded to encompass hepatitis B and C, and sexually transmissible infections. The Kirby Institute also conducts research into the transmission, prevention and natural history of these infections.

The Kirby Institute's research program has increasingly taken on a regional focus, with major collaborative programs in Thailand and Cambodia. The Kirby Institute conducts research through eleven programs. Dissemination of the Kirby Institute's research output is undertaken through publication in scientific journals and a range of surveillance reports.

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