



PATH CENTRE

The Western Australian Centre for Pathology and Medical Research

**ANNUAL REPORT
JUNE 2003**

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OUR VISION

PathCentre will provide world-class pathology services supported by innovative research and development.

OUR MISSION

PathCentre is committed to improving the health of the people of Western Australia by providing quality pathology services that are customer focussed, competitive and supported by excellence in teaching and research.

OUR CORE VALUES

OUR CLIENTS

Our clients are fundamental to our success. We will respect them and their needs.

OUR PATIENTS

We will be sensitive to patients' needs, respect their dignity and ensure confidentiality.

OUR PEOPLE

Our people are our most valuable asset. We will support them to achieve their full potential in an environment of equal opportunity.

We will foster an environment of open communication, participation and respect for individual opinions and contributions.

OUR WORKPLACE

Our workplace will be safe and will be based on honesty, courtesy, teamwork and adaptability to change.

THE COMMUNITY

We will actively serve the community and be responsive to its needs.

PROFESSIONALISM

We will operate ethically and at the highest levels of professionalism.

CHAIRMAN'S REPORT

This is my final report in my capacity as Chair of the Board of PathCentre. Effective 01 July 2003, the Government appointed a new Board, comprised of Department of Health personnel. This action is consistent with the Government's policy to establish, so far as possible having regard to legislative constraints, a single hospital and health service accountable, via the Director-General of Health, to the Minister for Health.

I understand that all statutory corporations in the public health sector are now controlled by boards of Department of Health personnel.

It is not appropriate for me to comment on the appropriateness or otherwise of this agenda. On behalf of the retiring independent non-executive Board members, it is appropriate that I record their unanimous view for the successful future of PathCentre. That view can be summarised as follows:

- PathCentre should be maintained as a corporate entity, separate from the Department, and should continue to be run as a state trading concern on commercial lines. The existing fee for service model ensures the accurate and transparent allocation of costs across PathCentre and its public hospital and other clients;
- PathCentre should be encouraged to pursue opportunities in the private sector. Revenue earned from private sector work subsidises the cost of public patient pathology to the State;
- PathCentre must be allowed to continue its advocacy as a member of the National Coalition of Public Pathology – to arrest the unfair competitive advantage currently available to private sector pathology, under the Commonwealth Medical Benefits Schedule scheme in the form of the Patient Episode Initiation Fee;
- PathCentre should be used as the vehicle to conclude the amalgamation and consolidation of the public sector pathology providers in this State. PathCentre has demonstrated it is by far the most cost competitive public sector pathology provider. This position will only be enhanced through further growth;
- Finally, and most importantly, PathCentre should continue to be managed and led by a CEO of the calibre of its existing CEO, Dr Keith Shilkin. Keith is PathCentre's inaugural CEO but his contract expires later this year. The Board attributes much of the loyalty and devotion of the key pathologists and scientists at PathCentre to the professional accomplishments, calibre and business nous of Keith. As head of the executive team, he has successfully negotiated the buy-out of all private practice rights at PathCentre and avoided the pitfall of attracting staff to PathCentre on the promise of a four-day week with the option of devoting the fifth working day to a private sector competitor. Keith and his executive team have consistently and successfully ensured accountability for budgetary performance. They have seamlessly led the organisation from a traditional Health Program Grant funding model for private patient pathology to a Medicare fee-for-service funded model. This has entailed full accreditation under the National Association of Testing Authorities/Royal College of Pathologists of Australasia regime of each laboratory maintained by PathCentre across the State.

The Board has observed what happens to a health entity when a CEO is perceived by its highly intelligent and specialised workforce to be inappropriate for the role of CEO. History shows the impact on budgetary performance. These problems and issues have been avoided at PathCentre because the staff respect the CEO and observe the fiscal imperatives imposed by the executive team.

It is my pleasure to record my thanks to all fellow Board members for their enthusiasm and commitment of time, expertise, experience and wisdom to the development and strategic leadership of PathCentre.

The retiring Board members' view of the executive team at PathCentre is obvious from my earlier comments. The partnership between the Board and the executive team was marked by honesty, common purpose, and camaraderie. Problems and issues were identified and worked through in a co-operative and thoughtful manner.

The Board members without exception were proud of PathCentre and, consequently, wonderful advocates for the organisation and each member of it.

I congratulate the new Board members on their appointment. I encourage them to assess the merit of the strategy, outlined above, for PathCentre's future. It is not a blinkered strategy aimed at enhancing PathCentre's position at the expense of others in the public health sector. It is a common sense, commercial strategy that will deliver significant cost savings for Government.

On behalf of the retiring Board, I fondly farewell every member of the team at PathCentre and wish the organisation continued success as the State's principal service provider and centre of excellence in pathology.

Ms Jennifer J Pickworth
Chairman, PathCentre Board

REPORT OF THE CHIEF EXECUTIVE OFFICER

The year to June 30 2003 was one of progress and advancement on many fronts at PathCentre. As I foreshadowed in last year's Annual Report, the fee rate paid by PathCentre public sector clients was reviewed by a high level broad based executive Committee appointed by the Director General of Health. This Committee, acting on advice from a specialist working group which examined the detail, agreed that the fee rate was inadequate to ensure viability of the service and accepted that an increased level of payment was required. As this decision came too late in the year to enable distribution of funds to PathCentre's individual public hospital clients, the Department negotiated with us a special compensatory payment to make up the anticipated shortfall. Because of the success of our efficiencies and our attraction of extra work, our own contribution enabled a considerable saving of \$1.2m to the Department. The important point is that the Department now better understands the subtleties of the pathology fee system at PathCentre involving as it does the vagaries of the Commonwealth Medical Benefits Schedule, and acknowledges the impact of the externally imposed reduction in the fee levels of that Schedule on the workings of our business model.

For 2003/04, PathCentre will be charging public hospital clients at the new accepted viable rate, and we have advised all Hospitals accordingly. Our estimates for 2003/04 are structured accordingly.

Our private referral work, gained in the open market, has grown in line with or slightly greater than the trend in WA and thus we have again at least maintained, if not enhanced somewhat, our market share. Recently we have opened a new Approved Collection Centre in Byford and as at June 30 have scheduled openings shortly in Narrogin and Subiaco. The appointment of a specifically designated Medical Liaison Officer has been a major factor in these developments.

During the year we conducted a review of our organisational structure which clearly demonstrated the need for a Laboratory Support Division to be created to better co-ordinate laboratory support activities, including marketing, specimen collection, specimen registration and a number of other support facilities. The appointment of a Managing Scientist for this Division was made (utilising funding from a redundant post) and the whole process proved to be a very successful change. Other aspects of our organisational structure are currently under review as we maintain our program of seeking further efficiencies.

Management as a whole has vigorously pursued PathCentre's Strategic Plan 2002 – 2005. The senior team has met on a regular basis to monitor progress of the 66 individual items in the "Action Plan" that were consequent upon the formulated strategies. As at 30 June 2003 a majority of items has been completed or incorporated into routine ongoing systems; the remaining items which were expected to require a longer time frame will continue to be effected with progress being regularly monitored. As a result, we have been able to improve our service to clients, to achieve further economies and efficiencies and to enhance the reputation of PathCentre in the professional community as well as in the community generally.

During the year I was co-opted to the Executive of the National Coalition of Public Pathology (NCOPP), a recently formed national body to represent the interests of public sector pathology providers at the highest level. Already NCOPP has achieved a seat at

the table of the national peak councils of decision making in pathology, and is now in a position to influence the debate on the mechanisms of better delivery of pathology services in Australia. Improvements, as a result, will flow back as benefits, financial and otherwise, to PathCentre and pathology services in WA. I am certain that maintaining this type of contact at the national level is both relevant and important to our continued success.

This Annual Report describes in considerable detail in the Highlights and Achievements section and elsewhere our performance during the year. I am pleased to say that we have continued to fulfil our charter objectives in all areas – service to our many clients in both public and private sectors, our public health responsibilities, our obligations in teaching and research, our role as a reference centre for the most complex and difficult areas of pathology, and as a centre of excellence in pathology. This outcome is a tribute to the support for our objectives shown by our extremely capable and highly skilled staff. I am always grateful for their support and have complete confidence in them knowing, as I do, that they are motivated by their understanding of the importance of all aspects of our work in pathology, its pivotal role in clinical diagnosis and hence the management of so many patients throughout the State, and its overall contribution to the delivery of better health services to our community.

One of the major, albeit simple and straightforward, lessons that may be drawn from PathCentre's experience over a number of years is that, in pathology testing, efficiencies largely derive from volume. This is well known in the private pathology sector where the drive towards efficiency has seen, through mergers and acquisitions, the emergence nationally of just four major pathology service providers. This has not been the situation in public pathology where there is a myriad of different public laboratories and laboratory systems throughout Australia. It is questionable if this situation is sustainable in the long term. PathCentre is in a position to contribute to any assessment of change to the current public pathology arrangements in Western Australia with a view to their improvement in terms of quality, efficiency and effectiveness.

To conclude this report, I would like to thank the outgoing Board of PathCentre for their outstanding contributions to our organization over the past few years. Personally, and on behalf of the management team and the entire staff, I would like to express our appreciation for their keen support of our endeavours, for their superior expertise in guiding us, in helping to set our direction and in encouraging us, yet firmly ensuring that we did not stray from the course. Jenny Pickworth was a tower of strength and we will all miss her positive, friendly approach and strong leadership. Together with our team I now look forward to working with the new Board membership as we continue to strengthen PathCentre as the State's major pathology resource.

Dr Keith B Shilkin
Chief Executive Officer

NOTABLE HIGHLIGHTS AND KEY ACHIEVEMENTS 2002 – 2003

Strategic Plan – Progress

The PathCentre Strategic Plan 2002 – 2005 has been pursued through the details of a Business Plan with associated actions. A monitoring process has ensured progress of the plan and, of 66 items to be actioned during the 3 year period, 47 are completed and/or incorporated into routine procedures; the remaining 19 items are part of longer term planning and are being pursued as appropriate.

Pathology Service Delivery

PathCentre maintained its high quality level of service to all clients. The work for both public and private sector increased by an overall volume of around 7%. The efficiency of the service was maintained with the speed of response (turn-around-times) continuing to improve. In most areas we more than match the competition but we constantly monitor where there may be room for improvement. Our system of electronic downloading of results to the doctors' or hospitals desk top computer, PathCentre Direct[®], is easily the best available – doctors who use this system find it extremely convenient. We are currently working on more improvements to this system. Overall we have not lost clients during the year, indeed there has been some gain in referrals despite the aggressive competition in the marketplace.

Forensic Biology

Following passage of the *Criminal Investigation (Identifying People) Act 2002*, PathCentre successfully won the WA Police contract for the DNA testing that derived from implementation of the Act. This produced a considerable amount of new work for the Forensic Biology laboratory which has been gearing up as rapidly as possible to process the samples. This has required engagement of additional experienced scientific staff who are currently in short supply. Nevertheless, the unit has grown rapidly to accommodate Police demands in this and other like areas. Thus far the DNA program has been an outstanding success. PathCentre and Police officials meet on a monthly basis to assess progress and determine priorities. As the forensic testing service has expanded it has outgrown the available accommodation and it will be necessary to move to new premises during 2003/04.

SARS Outbreak

PathCentre responded to the urgency of this outbreak during the year and our pathologists and scientists maintained close contact with overseas experts. Our laboratory was able to rapidly develop a molecular based test for the newly identified coronavirus responsible for the condition and our staff played a key role in eliminating suspect cases. A deficiency in the WA public health system was brought to light by this outbreak in that there is no readily available stand-by laboratory facility capable of handling such a highly infectious agent. The Director General of Health agreed to fund the construction of the appropriate C3 level laboratory in our Microbiology area. This work was commenced and will be completed in 2003/04.

Bali Bombing Atrocity

PathCentre specialists became deeply involved in the aftermath of this event. Our Clinical Director of Forensic Pathology spent several weeks on two missions to Bali taking a key role with the Disaster Victim Identification team. The team was supported by our Forensic Odontologist and Forensic Anthropologist, who also were in Bali for varying periods. A

group of our Forensic Biology laboratory scientists were sent to Canberra to work on the DNA identification procedures. Six members of our staff received the Premier's commemorative pin for their outstanding contribution.

Academic Achievements

Apart from the extensive publication list attached as an appendix to this Annual Report, there are several noteworthy items.

- PathCentre staff won national competitions for posters presented at national professional society meetings during the year, the first at the Annual Conference of the Australasian Association of Clinical Biochemists and the second at the Australasian Division of the International Academy of Pathology.
- Four members of staff and research workers attached to PathCentre staff gained the degree of PhD during the year.
- PathCentre's pathology Registrar Trainees in pathology in the programs of the Royal College of Pathologists of Australasia achieved considerable success with four senior trainees gaining final Fellowship of the College and three junior trainees passing the Part I exams.
- The initial PathCentre sponsored PhD scholarship was awarded by the University of WA; the winner took up the scholarship in the Division of Clinical Pathology.
- Major new research grants were won in the Division of Clinical Pathology (\$99,000 over 2 years from the National Heart Foundation) and in the Division of Microbiology and Infectious Diseases (share of \$17.5 million over 7 years as part of the Australian Biosecurity Co-Operative Research Centre program). Other lesser grants were also recorded.

PathCentre Visiting Lecturer 2002

In September 2002 Professor Dennis Lo from the Chinese University of Hong Kong spent a period of time at PathCentre as our Visiting Lecturer. He lectured on aspects of molecular biology applications in biochemistry and worked with our staff in our laboratories. Under our auspices, he offered lectures to the broader WA medical and scientific community.

Accreditation

The final group of PathCentre's rural laboratories received formal advice of accreditation under the National Association of Testing Authorities/Royal College of Pathologists of Australasia regime. All 24 of PathCentre's Branch laboratories in remote, rural and metropolitan areas are now fully accredited, guaranteeing a quality of testing and service provision at best practice level. Board members and senior managers have visited many of our Branch laboratories to present accreditation certificates at small ceremonies with PathCentre staff and local hospital officials to acknowledge the achievements of Branch staff.

PathCentre Customer Feedback Survey Conducted among Medical Practitioners

In 2002 a detailed and comprehensive survey of our referring medical practitioners was carried out with the assistance of the Australian Institute of Management. By October, the results had been assessed, then discussed with key staff and, from the conclusions drawn,

changes to improve our services were introduced. The details of the responses were reported to the Board.

Employee Satisfaction Survey

As part of the requirements of the Strategic Plan this survey was drawn up by an expert on secondment from The University of Western Australia Department of Psychology. The responses were assessed by our human resources staff and also by senior management including pathologists and scientists. As an organisation we have responded to many of the issues that emerged from the survey and it is the intention to monitor the impact of this response at a future date.

Industrial Agreements

Agreements were concluded between PathCentre and the Australian Medical Association for formalisation of the Medical Practitioners (PathCentre) AMA Industrial Agreement 2002, and for scientific staff the PathCentre Agency Specific Agreement 2003 was also concluded.

Intellectual Property

The Board introduced an Intellectual Property Policy based essentially on Government documentation. The Policy includes guidelines and internal regulations to be monitored by an Intellectual Property Committee convened by an appointed Intellectual Property Officer. Confidentiality agreements have been signed in relation to two projects with IP potential.

Structural Reorganisation

As a result of a review of operational factors and our organisational structure, a new Division of Laboratory Support was found to be necessary to maintain the efficiencies of operations and increased work volume. This structural change is identified in the chart included as part of this Annual Report. The Managing Scientist of the Laboratory Support Division took up the appointment in March 2003.

Further assessment of the structure with a view to streamlining functionality is under way.

Department of Health-PathCentre-Public Sector Pathology Funding Executive Committee

A high level Departmental committee, including PathCentre representation, was established by the Director General of Health to assess the business model and current funding arrangements for PathCentre, and other matters relating to public sector pathology service provision. This Committee received and accepted a report from its appointed specialist working group. The committee noted the externally imposed reductions in the Commonwealth Medical Benefits Schedule of fee for pathology services, resulting from framework agreements between the Commonwealth and the private pathology sector, and the consequently deleterious impact on the revenue stream at PathCentre. In essence, at its meeting of 18 February 2003, the committee accepted the need to ensure the viability of PathCentre under the current business model by modification of the level of fee payments by public hospital clients for pathology services provided by PathCentre. The necessary approaches to effect this would be made in the Department's budget processes for 2003/04 to enable appropriate pricing of PathCentre's fees to public hospitals. For 2002/03, rather than obliging individual hospitals to make the contributions agreed, the Department would arrange direct payments to PathCentre. PathCentre's own efficiency contribution for 2002/03 would provide a saving of \$1.2m to the Department. PathCentre's 2003/04 financial estimates would be based on the new approved arrangements.

Financial Performance

PathCentre's revenue versus expenditure during 2002/03 produced a small loss of \$414,000. Most of this may be attributed to the impact of the cuts, described above, to the Commonwealth Medical Benefits Schedule of fees, the basis of PathCentre's funding model, and the impact of such reductions on total revenue. Nevertheless, efficiency gains have seen the loss kept to a minimum. It is to be noted that the business model is designed to produce a balanced position at the end of each financial year.

From data available in the public arena, PathCentre's financial performance compares favourably with private sector pathology services. It must be understood that private sector pathology providers receive additional payments under the CMBS arrangements, in particular they receive a payment for the collection of specimens termed the Patient Episode Initiative (PEI) fee which provides an estimated additional 25% to their revenue. Were a public sector pathology service provider operating strictly according to a CMBS fee model, incurring all the costs of collection as does PathCentre, to receive the PEI fee, the revenue stream would be correspondingly enhanced. Given that the profitability of private pathology operators varies approximately between 5% and 20%, our receipt of a PEI would see us producing a respectable profit. This is not our objective, as our business model is calculated to return a balance, as already mentioned. Nevertheless, the lack of a PEI is a factor that needs to be kept in mind when judging our financial performance or comparing it with the private operators, especially considering that as a major public laboratory service we must perform the most complex, expensive and unprofitable tests, must accept reference testing for which there is no fee, and must offer a 24/365 day service to all corners of the State.

Ministerial Visits

The Premier and the Minister for Police visited PathCentre's Forensic Biology laboratories in November 2002. The purpose of their visit was to meet the staff and to see the laboratory where DNA testing was being performed following PathCentre's success in winning the contract for the Police intelligence work under recently promulgated enabling legislation.

The Board met formally with the Minister for Health, Hon Bob Kucera APM MLA, at his offices in March 2003. Among other topics, the future of public sector pathology service provision was discussed.

WA Government Corporate Services Reform

PathCentre was identified as an independent agency in this Government program of procurement and corporate reform and is to be placed in the Health Cluster Shared Services Centre. PathCentre's nominated Specialist Agency Officer has provided all requested data and has attended all briefings by the Functional Review Taskforce, representatives of which also interviewed the Chief Executive Officer.

Official Submissions

To Department of Health (WA): PathCentre's Application for Concept Approval for transmission to the Minister to enable the co-location at Midland of PathCentre Forensic Biology laboratories with Police Forensics and the Chemistry Centre of WA.

To Therapeutic Goods Administration (Department of Health and Ageing Canberra): PathCentre's response to the TGA discussion paper "A Proposal for a New Regulatory Framework for In Vitro Diagnostic Devices".

REPORT ON OPERATIONS

STATEMENT OF COMPLIANCE

**The Hon JA McGinty BA BJuris(Hons) LLB JP MLA
MINISTER FOR HEALTH**

In accordance with Section 66 of the *Financial Administration and Audit Act 1985*, we hereby submit for your information and presentation to Parliament the Report of the Western Australian Centre for Pathology and Medical Research (PathCentre) for the year ended 30 June 2003.

The report has been prepared in accordance with the provisions of the *Financial Administration and Audit Act 1985*.

Signed at Nedlands this 28th day of August 2003



Dr B Lloyd
Chairman



Dr KB Shilkin
Chief Executive Officer

OPERATIONAL SUMMARY

Enabling legislation and responsibility

The Western Australian Centre for Pathology and Medical Research (PathCentre) was established as an agency on 10 April 1995 by the *Agencies (PathCentre) Notice 1995*, made by the Lieutenant-Governor and Deputy of the Governor in Executive Council under Section 7B of the *Hospitals and Health Services Act 1927*. The agency has no subsidiary bodies.

PathCentre is responsible to the Minister for Health.

Mission, outcomes and objectives

PathCentre's government-desired outcomes and broad objectives were specified in its establishing Notice, as follows:

- (a) To provide pathology services to meet the requirements of the (Health) Department, public hospitals, private hospitals, public patients, private patients, medical practitioners and any other person or body;
- (b) To provide clinical teaching or research facilities or both for pathology services;
- (c) To act as reference centre and centre of excellence for pathology services;
- (d) To provide public health services and advice to the Department, any other department of the State or Commonwealth, any local authority and any other person or body;
- (e) To provide forensic science services to the public and private sectors;
- (f) To undertake commercial exploitation of any research undertaken by, or of any intellectual property rights belonging to, PathCentre for any purpose relating to the carrying on of the agency.

Board and management have defined PathCentre's Vision in the following terms:

PathCentre will provide world-class pathology services supported by innovative research and development.

PathCentre's Mission statement is as follows:

PathCentre is committed to improving the health of the people of Western Australia by providing quality pathology services that are customer focussed, competitive and supported by excellence in teaching and research.

Administrative structure

The PathCentre Board

Members of the Board are appointed by the Executive Council under section 7C of the *Hospitals and Health Services Act 1927*. The Board met ten times during 2002/03. In addition to the regular full Board meetings, much of the Board's work was accomplished through Committees whose membership consists of both Board members and management representatives: there are four such Committees dealing with matters relating to Audit, Finance, Medical and Scientific Research and Quality Improvement.

The following Board members held office during the year. Their terms of appointment, attendance at Board meetings and contributions as Board Committee members were:

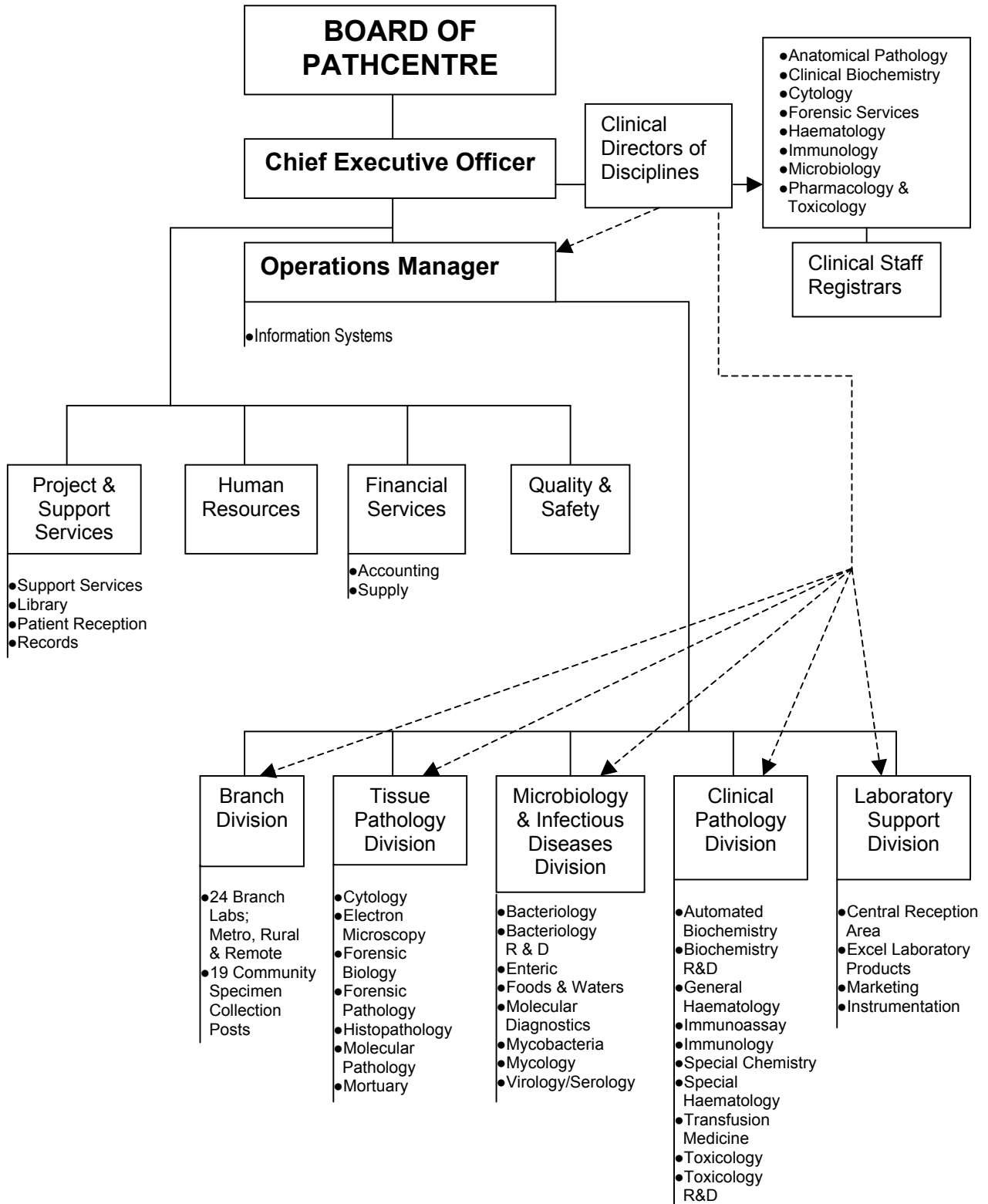
Board Member	Expiry date of appointment	Number of meetings attended	Committee membership
Ms Jennifer J Pickworth <i>BJuris, LLB</i>	30 June 2003	10	Aud
Dr Anne Donnelly <i>MBBS, MRACMA, Grad Dip Health Admin</i>	30 June 2003	8	
Dr Robert A Dunstan <i>BAppSc, Grad Dip Comp, MSc, PhD</i>	30 June 2003	7	
Mr Peter D Eastwood <i>FCA, FAICD</i>	30 June 2003	10	Aud, Fin
Dr Keven J Turner <i>BSc(Hons), PhD, DSc, FRCPATH</i>	30 June 2003	6	MSR
Dr Keith B Shilkin, Chief Executive Officer <i>MBBS, FRCPA, FRCPATH, FHKCPATH</i>	<i>ex officio</i>	10	Fin, MSR, QI

The terms of office of all the non-executive Board members expired on 30 June 2003. Subsequent to the year end, the following Board members were appointed on 11 July 2003:

Board Member	Expiry date of appointment
Dr Brian Lloyd	30 June 2006
Ms Elizabeth Rohwedder	30 June 2005
Mr A Clete Mathews	30 June 2005
Mr A John Griffiths	30 June 2006
Ms Julie M Feeney	30 June 2006

The CEO remains an *ex-officio* Board member.

ORGANISATIONAL CHART



Senior Officers

The senior executive officers of PathCentre and their responsibilities are:

Chief Executive Officer: Dr KB Shilkin

Operations Manager: Mr DR Taylor

Financial Controller: Mr JS Fryer

Managing Scientists:

Dr GN Kent	<i>Clinical Pathology Division</i>
Mr RA Bowman	<i>Microbiology & Infectious Diseases Division</i>
Dr P Caterina	<i>Tissue Pathology Division</i>
Mr JM Fogarty	<i>Branch Laboratories Division</i>
Mrs FE Brogden	<i>Laboratory Support Services Division</i>

Clinical Directors:

Dr DV Spagnolo	<i>Anatomical Pathology</i>
Dr CI Bhagat	<i>Biochemistry</i>
Dr FA Frost	<i>Cytology</i>
Dr CT Cooke	<i>Forensic Pathology</i>
Dr GM Cull	<i>Haematology (July 02 to June 03)</i>
Dr WN Erber	<i>Haematology (June 03 onwards)</i>
Dr PN Hollingsworth	<i>Immunology</i>
Dr DW Smith	<i>Microbiology & Infectious Diseases</i>
Assoc Prof DA Joyce	<i>Pharmacology/Toxicology</i>

Principal office

PathCentre's principal office and central laboratories are at The Queen Elizabeth II Medical Centre, Hospital Avenue, Nedlands, telephone (08) 9346 3000, facsimile (08) 9381 7594. It also maintains Branch Laboratories and collection centres in 43 other locations, mainly hospitals, throughout Western Australia.

Publications

A listing of publications by staff members can be found as part of this Annual Report. The agency also publishes a quarterly newsletter, *PathCentre News*, for the medical and health community in Western Australia. All these publications are available from PathCentre.

Contracts with senior officers

Other than normal contracts of employment or service, the Board is not aware of any existing or proposed contract which a senior officer, or a firm of which the senior officer is a member, or an entity in which the senior officer has a substantial financial interest, has made with PathCentre.

Ministerial directives

No Ministerial directives were received during the year.

Operations

PathCentre's operations are structured so as to comply with the Government's Policy on Pathology Services, which outlined three main aims for the publicly owned laboratories: first, to establish one unified laboratory service on the Queen Elizabeth II Medical Centre site; second, to ensure the Western Australian community received the best possible return on its investment by ensuring that the laboratories work to best practice and on a commercial basis; and third, to ensure there was no reduction in service levels and no adverse effect on laboratories, teaching, research, community service or public health work.

As can be seen from the administrative structure chart reproduced above PathCentre has five laboratory divisions - Clinical Pathology, Microbiology and Infectious Diseases, Tissue Pathology, Branch Laboratories and Laboratory Support Services - each under the control of a Managing Scientist with responsibility for the day to day operations of the division. Clinical Directors for each pathology discipline have responsibility for professional and clinical issues but are not directly involved in management.

Pricing of outputs

Diagnostic pathology testing is generally charged on a fee for service basis at prices based on the Commonwealth Medical Benefits Schedule (CMBS) issued by the Health Insurance Commission. Other testing is generally priced on a commercial basis.

The Department of Health continues to provide subsidies for some services rendered to the Department of Justice. PathCentre has made repeated efforts to move to an output based customer charging system for these services as is required by Government policy, however the Department of Justice has consistently declined to consider any such change. PathCentre management will again attempt during 2003/2004 to replace the subsidy arrangement with a more appropriate charging model. Any change will require active support and cooperation on the part of the Department of Health.

Staffing

Full Time Equivalent staffing was 690 as at 30 June 2003.

Industrial Relations

No industrial disputes arose within PathCentre during the reporting period.

Workers' Compensation

The number of active workers' compensation claims continued to decrease in 2002 – 2003 and the projected average cost per claim remains lower than the insurance fund average. Management's focus continues to be on early intervention strategies to assist injured workers back to work safely. Agreement has been reached with an external Occupational Health physician to provide expert medical advice on the management of more difficult claims.

Public Sector Standards

PathCentre has ensured compliance with Public Sector Standards in relation to Human Resource Management, the Western Australian Public Sector Code of Ethics and PathCentre's Code of Conduct through continuous internal process review. Those processes include:

- Development of effective access to human resource management policies through PathCentre's Intranet.
- Regularly reviewing human resource policies to ensure requirements of public sector standards are met.
- Conducting induction and orientation programs that introduce Code of Ethics, Code of Conduct and human resource policies. All employees receive regular updates on issues that require their support and compliance.
- Provision of accredited training programs that enhance employee's awareness and understanding of processes and procedures necessary to meeting Public Sector human resource management compliance requirements.
- Updating Human Resource Services staff skills relevant to delivery of effective human resource advice and services to management and employees.

Submissions and outcomes relating to breaches of Public Sector human resource management standards for the reporting period are:

Number of applications lodged with the Public Sector Standards Commission:	1
Number of breaches found:	1
Provision of satisfactory relief:	1
Number of applications under review:	Nil

Equal Employment Opportunity Outcomes

Management Plan 2003 – 2005 Results:

1. *Duty Statements to include "Capacity to manage EEO and Diversity"*
Project under way (phase two) for competency-based management and competency-based job descriptions, which would incorporate the above. Report due December 2003.
2. *Training*
On going throughout 2003 – 2004, inclusive of staff being regularly trained and up skilled in non-discriminatory selection processes.
3. *Monitoring of recruitment processes*
On-line spreadsheet developed and stages of process recorded, inclusive of timelines. Incorporates follow-ups where delays extend timelines.
4. *Induction review and on-line implementation*
In progress.

5. *Performance management training for all managers*

Completed, including distribution of self-learning booklet to all staff. New staff are issued self-learning resource at induction.

Cultural Diversity and Language Services Outcomes

Diversity:

1. *Greater female representation 2nd Tier Management*

Achieved ahead of timeline; eg position at CSA Level 8 established and appointed.

2. *12% increase in Branch/Section Manager female representation*

On going, as positions become vacant.

3. *1% increase in Indigenous staffing representation in remote regional branches*

Committee formed to progress plan and develop strategies. Research and networking being undertaken.

Language Services:

The provision of contact numbers for "On site Interpreter Service", plus "Off site Interpreter Service" contact numbers for after business hours incorporated into Telephone Etiquette Standards Policy for PathCentre. In accordance with that policy, training in relation to Telephone Etiquette has been undertaken for all employees, which incorporates the appropriate procedures for dealing with customer service language issues and information on interpreter services.

Youth Outcomes

A program is undertaken for pre graduate Curtin University Medical Scientists to improve their understanding of public pathology and to encourage employment in PathCentre. Incorporates briefing by Specialist Managers of PathCentre at the end of their second year; informing them of what specialties students need to consider for their final year, to be competitive. In addition, information is provided in relation to public sector employment in general and specifically in relation to the employment opportunities in PathCentre.

Freedom of Information

PathCentre received nine requests for information. Information was supplied to satisfy seven requests. Of the two requests not satisfied, one was due to the test not being performed at PathCentre and the other because the test was conducted in 1975.

Disability Services

All major objectives of the PathCentre Disability Services Plan were achieved in previous years. There are no new initiatives. A self-opening door was fitted to the second public entrance to Patient Reception in J Block, Nedlands.

Advertising and Sponsorship

During the 2002-2003 financial year PathCentre incurred \$25,737 for the use of media advertising agency Marketforce and \$6,534 for the use of direct mailing organisation Post Data.

SENIOR STAFF

Division of Clinical Pathology

Biochemistry

Dr CI BHAGAT MD, MBChB, MSc, MAACB, FRCPA Clinical Director
Dr JP BEILBY BSc(Hons), PhD, FAACB [Adjunct Senior Lecturer – UWA]
Dr GN KENT BSc(Hons), PhD, FAACB
Dr E ROSSI BSc(Hons), PhD, MAACB
Dr BGA STUCKEY MBBS, BA, FRACP (Endocrine Biochemist – Part time)
Dr SD VASIKARAN MBBS, MD, MSc, FRCPA (Honorary Clinical Biochemist)
Dr JP WALSH MBBS, BA(Hons) PhD, FRACP (Endocrine Biochemist – Part time)

Haematology

Dr WN ERBER MD, DPhil(Oxon), FRCPA Clinical Director [Clinical Associate Professor – UWA]
Professor CG BEGLEY MBBS, PhD, FRACP, FRCPATH (Honorary Haematologist)
Dr CH COLE MBBS, FRACP, FRCPA (Paediatric Haematologist – Part time)
Dr GPM CRAWFORD MD, FRACP, FRCPA, FRCP (Honorary Haematologist)
Dr GM CULL MBBS, FRACP, FRCPA, DM (Part time SCGH)
Dr RP HERRMANN MBBS, FRACP, FRCPA (Honorary Haematologist)
Dr DJL JOSKE MBBS, FRACP, FRCPA (Part time SCGH)
Dr MS WARD MBBS, ChB, MRCP, FRACP, FRCPA (Locum – Part time)

Immunology

Dr PN HOLLINGSWORTH MBBS, DPhil(Oxon), FRACP, FRCPA, Clinical Director (Part time SCGH)
Dr PJ ZILKO MBBS, MRCP, FRACP, FRCPA (Honorary Immunologist)

Pharmacology & Toxicology

Associate Professor DA JOYCE MBBS, MD, FRACP Clinical Director (UWA)
Associate Professor KF ILETT BPharm, MPS, PhD (UWA)
Professor JW PATERSON MBBS, BSc, AKC, FRCP, FRACP, FRCPA (Emeritus Consultant)

Division of Microbiology & Infectious Diseases

Dr DW SMITH MBBS, BMedSc, FRCPA Clinical Director [Clinical Associate Professor – UWA]
Dr CL GOLLEDGE MBBS (Hons), BSc(Med), MRCP(UK), FRCPA, FACTM, DTM&H
Dr GB HARNETT PhD, MASM, FIBS, FAIMS
Dr TJJ INGLIS BMDM, FRCPATH, DTM&H, FRCPA
Professor TV RILEY PhD, BAppSc, MAppEpid, FRCPATH, MAIMS, FASM, FAAM (Joint appointment with UWA)
Dr DJ SPEERS MBBS, BSc(Hons), FRACP, FRCPA (Part time SCGH)

Division of Tissue Pathology

Anatomical Pathology

Dr DV SPAGNOLO *MBBS, FRCPA* Clinical Director [Clinical Professor – UWA]
Dr WB DE BOER *MBBS, BMedSc, FRCPA*
Dr FA FROST *MBBS, FRCPA, FIAC*
Associate Professor T GOTJAMANOS *MDS PhD, FRACDS, FFOP(RCPA)* (Honorary Oral Pathologist)
Associate Professor JM HARVEY *MBBS, FRCPA* (UWA)
Dr F HUGHES *MBBCh, BAO, FFPATH, FRCPath*
Dr A NARAN *MBChB, FFPATH, FRCPA, MRCPATH*,
Professor JM PAPADIMITRIOU *AM, MBBS, BA, MD, FRCPA, FRCP, FRCPath, FIBiol, CBiol* (UWA)
Dr PD ROBBINS *MBBS, FRCPA* [Clinical Senior Lecturer – UWA]
Dr W ROBINSON *MBBS, FRCPA*
Dr A SEGAL *MBBS, FRCPA*
Dr KB SHILKIN *MBBS, FRCPA, FRCPath, FHKCPath* [Clinical Professor – UWA]
Dr R SINNIAH *DSc, PhD, MD, MBBCh, BAO, FRCPI, FRCPA, FRCPath* (Locum – Part time)
Dr B SNOWBALL *MBBS, DCH, FRCPA*
Dr SA SPARROW *MBBS, FRCPA, MIAC* (Part time)
Dr GF STERRETT *MBBS, FRCPA, FIAC* [Clinical Associate Professor – UWA]
Dr D WHITAKER *FIMLS, PhD, MRCPATH, MAIMS, CFIAC*
Dr L YU *MBBS, FRCPA, DipRCPATH* (Honorary Dermatopathologist)

Forensic Pathology

Dr CT COOKE *MBBS, BMedSc, FRCPA* Clinical Director [Clinical Senior Lecturer – UWA]
Dr AM BUCK *DipTeach, BAppSc, MSc(Prelim), PhD* (Forensic Anthropologist – Part time)
Dr GA CADDEN *MB, ChB(Glas), DMJ(Path)*
Dr IR DADOUR *BSc(Hons), PhD* (Honorary Forensic Entomologist)
Dr S KNOTT *BDS, DipForOdont* (Forensic Odontologist – Part time)
Dr KA MARGOLIUS *BSc, MBBCh, FFPATH(SA), MIAC, FRCPA, FACLM, LLB*
Professor GR STEWART *BSc, PhD, DSc* (Honorary Forensic Botanist)

Corporate

Dr KB SHILKIN *MBBS, FRCPA, FRCPath, FHKCPath* Chief Executive Officer
Mr DR TAYLOR *BAppSc, GradDipComp* Operations Manager
Mr JS FRYER *FCA* Financial Controller
Mr TJ NEILL *CMAHRI* Human Resource Manager
Mr H CARMAN *BAppSc, GradDipBus* Safety and Quality Improvement Officer
Miss MS WOODS *BAppSc, GradDipBus* Project and Support Services Manager
Mr RA BOWMAN *BAppSc, MSc, GradDipBus, FASM* Managing Scientist Microbiology & Infectious Diseases Division
Mrs FE BROGDEN *MSc* Managing Scientist Laboratory Support Division
Dr P CATERINA *BAppSc, PhD* Managing Scientist Tissue Pathology Division
Mr JM FOGARTY *AssocDip(Med Tech)* Managing Scientist Branch Laboratories Division
Dr GN KENT *BSc(Hons), PhD, FAACB* Managing Scientist Clinical Pathology Division

PATHCENTRE LUNCH TIME FORUMS

DATE	SPEAKER	TOPIC
10 July 2002	Dr Vin Williams Ms Alina Struys Mr Chris Choo <i>Cytology</i>	Home grown solutions for two conundrums – blue slides and crowded sheets.
24 July 2002	Prof Tom Riley Mr Rod Bowman <i>Microbiology & Infectious Diseases</i>	Infectious hazards of crayfishing.
07 August 2002	Dr Karin Margolius <i>Forensic Pathology</i>	Sexual assault and murder.
21 August 2002	Dr Peter Hollingsworth <i>Immunology</i>	Coeliac disease – allergy meets autoimmunity.
04 September 2002	Ms Minda Sarna Ms Kate Hammer Mr Qinning Wang <i>Post-Graduate Student Presentations</i>	Meningococcal disease in Western Australia. The Antifungal activity of tea tree oil. Cloning of the <i>Erysipelothrix Rhusiopathiae</i> neuraminidase gene.
18 September 2002	Dr Baastian De Boer <i>Histopathology</i>	Better than a poke in the liver with a blunt stick.
25 September 2002	Prof Dennis Lo <i>PathCentre Visiting Lecturer</i>	Applications of plasma DNA to emergency medicine and transplantation.
09 October 2002	Dr Paul Quigley <i>Emergency Department PMH</i>	Drink spiking.
16 October 2002	Dr Gavin Cull <i>Haematology</i>	Chronic lymphocytic leukaemia – new insights.
30 October 2002	Dr John Beilby <i>Biochemistry</i>	Diet and disease.
05 March 2003	Dr David Joyce <i>Pharmacology & Toxicology</i>	Comparison of haemodialysis and haemodiafiltration for managing methanol poisoning.
19 March 2003	Dr Ric Rossi <i>Biochemistry</i>	Shipwreck survivors and inherited porphyria.
02 April 2003	Ms Anthea Downs Dr John Beilby <i>Clinical Pathology</i>	Spot the difference.
16 April 2003	Dr Robert Cooke <i>Anatomical Pathology</i>	Multiple Sclerosis – a viral aetiology?
30 April 2003	Dr Clive Cooke Dr Alanah Buck Dr Stephen Knott <i>Forensic Pathology</i>	Disaster Victim Identification (DVI).

DATE	SPEAKER	TOPIC
14 May 2003	Dr Peter Hollingsworth <i>Immunology</i>	Autoimmunity at the neuromuscular junction.
28 May 2003	Dr David Smith <i>Microbiology & Infectious Diseases</i>	SARS update.
11 June 2003	Dr Ric Rossi <i>Biochemistry</i>	Iron update.
25 June 2003	Mr Sean O'Halloran <i>Pharmacology & Toxicology</i>	Drugs of abuse testing in the workplace – an update.

PERFORMANCE INDICATORS



AUDITOR GENERAL

INDEPENDENT AUDIT OPINION

To the Parliament of Western Australia

THE WESTERN AUSTRALIAN CENTRE FOR PATHOLOGY AND MEDICAL RESEARCH PERFORMANCE INDICATORS FOR THE YEAR ENDED JUNE 30, 2003

Audit Opinion

In my opinion, the key effectiveness and efficiency performance indicators of The Western Australian Centre for Pathology and Medical Research are relevant and appropriate to help users assess the Centre's performance and fairly represent the indicated performance for the year ended June 30, 2003.

Scope

The Board's Role

The Board is responsible for developing and maintaining proper records and systems for preparing performance indicators.

The performance indicators consist of key indicators of effectiveness and efficiency.

Summary of my Role

As required by the Financial Administration and Audit Act 1985, I have independently audited the performance indicators to express an opinion on them. This was done by looking at a sample of the evidence.

An audit does not guarantee that every amount and disclosure in the performance indicators is error free, nor does it examine all evidence and every transaction. However, my audit procedures should identify errors or omissions significant enough to adversely affect the decisions of users of the performance indicators.

A handwritten signature in black ink, appearing to read 'D D R Pearson'.

D D R PEARSON
AUDITOR GENERAL
December 1, 2003

CERTIFICATION OF PERFORMANCE INDICATORS

We hereby certify that the Performance Indicators presented in the following pages are based on proper records, are relevant and appropriate for assisting users to assess PathCentre's performance and fairly represent the performance of The Western Australian Centre for Pathology and Medical Research (PathCentre) for the year ended 30 June 2003.

Signed at Nedlands this 28th day of August 2003



Dr B Lloyd
Chairman



Dr KB Shilkin
Chief Executive Officer

PERFORMANCE INDICATORS

PathCentre is required by the Financial Administration and Audit Act 1985 to disclose performance indicators. These are intended to assist interested parties with their assessment of the agency's performance in the production of its outputs and the achievement of its government desired outcomes.

PathCentre's principal government desired outcome is the provision of pathology and laboratory testing services to meet the needs and expectations of the Western Australian community.

The indicators set out below have been developed to meet the requirements of the Act and therefore to provide information as to the quantity, quality, timeliness and cost of PathCentre's outputs. Audited key performance indicators of efficiency and of effectiveness are presented separately.

Quantity

Laboratory testing accounts for approximately 95% of PathCentre's operations. Outputs from laboratory testing for clinical diagnostic purposes are measured in Commonwealth Medical Benefits Schedule (CMBS) items and from other testing in test numbers. On this basis of measurement outputs showed an increase of 6.9% over the previous year (2001/02 3.0% over 2000/01). It should be noted that these calculations are based on counts of items which vary considerably in complexity and value.

Quality

The most appropriate indicator of quality is provided by NATA (National Association of Testing Authorities) accreditation, which involves periodic independent assessment of a laboratory's procedures and operations to determine whether they meet highest quality standards. All PathCentre's laboratories are NATA accredited.

Timeliness

In order to provide an indication of timeliness in laboratory processing, a sample of common pathology tests performed in the central laboratories was selected and a target turnaround time for delivery of results was set. 94% of results for the tests selected were delivered within the targeted time. The same exercise recorded a 96% rate the previous year.

Cost

Total costs as disclosed in the Statement of Financial Performance rose from \$56,403,177 to \$62,237,271.

AUDITED PERFORMANCE INDICATORS

PathCentre is required by the Financial Administration and Audit Act 1985 to develop and present key performance indicators of efficiency and of effectiveness to be submitted to and audited by the Auditor General. These are intended to assist interested parties with their assessment of the agency's performance in the production of its outputs and the achievement of its government desired outcomes.

PathCentre's principal government desired outcome is the provision of pathology and laboratory testing services to meet the needs and expectations of the Western Australian community. Outputs from such testing account for approximately 95% of the agency's operations. The indicators set out below have been developed to meet the requirements of the Act and to inform the reader as to PathCentre's efficiency and effectiveness. They relate only to pathology and other laboratory testing. It should be noted that some of these calculations are based on counts of items which vary considerably in complexity and value.

Efficiency indicators

An overall indicator of efficiency is provided by relating outputs, measured in Commonwealth Medical Benefit Schedule (CMBS) items or equivalents, to total operating costs. Operating cost per item in 2002/03 was \$32.05, an increase of only 1.7% over the equivalent figure of \$31.51 in 2001/02. This percentage increase compares favourably with the overall increase in operating costs of 10.3% shown in the financial statements (2001/02 7.6% and 11.2% increase respectively over 2000/01) and demonstrates a continuing improvement in overall cost efficiency.

Since staff costs account for most of PathCentre's total operating costs it is also relevant to measure staff cost efficiency by relating outputs, in CMBS items, to total staff costs. Staff cost per item in 2002/03 was \$21.36, an increase of only 2.4% over the equivalent of \$20.86 in 2001/02. This percentage increase compares favourably with the overall increase in staff costs of 9.4% shown in the financial statements (2001/02 5.2% and 8.3% increase respectively over 2000/01), and demonstrates a continuing improvement in staff cost efficiency).

It is also relevant to measure staff productivity. This is best expressed in terms of outputs, measured in items, per average staff numbers during the year, measured in full-time equivalents (FTE). In 2002/03 outputs per FTE improved by 2.1% to 2,831 from 2,772 in 2000/01, (1.9% in that year from 2,722 in 2000/01). This demonstrates a continuing improvement in staff productivity and therefore efficiency.

Effectiveness indicators

A measure of effectiveness is provided by calculating PathCentre's market share. This is the increase in the volume (in CMBS items) of pathology tests ordered by medical practitioners in cases where the patient and/or the ordering doctor has a choice of using either PathCentre or a competing pathology provider. Such tests are mostly bulk billed to the Health Insurance Commission (Medicare). They showed an increase over the previous year of 13.9% (5.7% in 2001/02). In comparison the comparative pathology market in Western Australia as reported by the Health Insurance Commission increased by 1.9% in volume (9.0%). Our market share therefore increased, indicating a higher level of effectiveness than our competitors.

Summary of Research, Teaching and Reference Centre Activity

	2002/2003 Clinical Pathology	2002/2003 Micro- biology	2002/2003 Tissue Pathology	2002/2003 TOTALS	2001/2002 TOTALS
Research					
Post-graduate students	7	9	4	20	27
Original/Scientific publications	34	25	17	76	112
Conference presentations	21	17	28	66	47
Teaching					
Undergraduate lectures	80	85	258	423	500
Other lectures	10	5	152	167	84
Reference centre					
Specialist lectures	4	2	6	12	19
Advisory bodies	3	61	29	93	100
Invited papers	15	29	16	60	64
Awards	0	1	2	3	5

FINANCIAL STATEMENTS



AUDITOR GENERAL

INDEPENDENT AUDIT OPINION

To the Parliament of Western Australia

THE WESTERN AUSTRALIAN CENTRE FOR PATHOLOGY AND MEDICAL RESEARCH FINANCIAL STATEMENTS FOR THE YEAR ENDED JUNE 30, 2003

Audit Opinion

In my opinion,

- (i) the controls exercised by The Western Australian Centre for Pathology and Medical Research provide reasonable assurance that the receipt, expenditure and investment of moneys, the acquisition and disposal of property, and the incurring of liabilities have been in accordance with legislative provisions; and
- (ii) the financial statements are based on proper accounts and present fairly in accordance with applicable Accounting Standards and other mandatory professional reporting requirements in Australia and the Treasurer's Instructions, the financial position of the Centre at June 30, 2003 and its financial performance and cash flows for the year ended on that date.

Scope

The Board's Role

The Board is responsible for keeping proper accounts and maintaining adequate systems of internal control, preparing the financial statements, and complying with the Financial Administration and Audit Act 1985 (the Act) and other relevant written law.

The financial statements consist of the Statement of Financial Performance, Statement of Financial Position, Statement of Cash Flows and the Notes to the Financial Statements.

Summary of my Role

As required by the Act, I have independently audited the accounts and financial statements to express an opinion on the controls and financial statements. This was done by looking at a sample of the evidence.

An audit does not guarantee that every amount and disclosure in the financial statements is error free. The term "reasonable assurance" recognises that an audit does not examine all evidence and every transaction. However, my audit procedures should identify errors or omissions significant enough to adversely affect the decisions of users of the financial statements.

D D R PEARSON
AUDITOR GENERAL
December 1, 2003

CERTIFICATION OF FINANCIAL STATEMENTS

The accompanying financial statements of The Western Australian Centre for Pathology and Medical Research (PathCentre) have been prepared in compliance with the *Financial Administration and Audit Act 1985* from proper accounts and records to present fairly the financial transactions for the year ended 30 June 2003 and the financial position as at 30 June 2003.

At the date of signing we are not aware of any circumstances which would render the particulars included in the financial statements misleading or inaccurate.

Signed at Nedlands this 28th day of August 2003



Dr B Lloyd
CHAIRMAN



Dr KB Shilkin
CHIEF EXECUTIVE OFFICER



Mr JS Fryer
PRINCIPAL ACCOUNTING OFFICER

PathCentre Annual Report 2003

STATEMENT OF FINANCIAL PERFORMANCE for the year ended 30 June 2003

	Note	2002/2003 \$	2001/2002 \$
COST OF SERVICES			
Expenses from Ordinary Activities			
Employee expenses	2	40,570,758	37,067,509
Consumables		13,996,444	13,367,838
External services		2,383,959	1,504,736
Depreciation	23	1,687,472	1,787,526
Capital user charge	3	1,354,550	389,144
Communications		1,015,075	1,010,320
Borrowing costs		19,679	32,545
Other expenses from ordinary activities	4	1,209,334	1,243,559
Total Cost of Services		<u>62,237,271</u>	<u>56,403,177</u>
Revenues from Ordinary Activities			
<i>Revenues from operating activities</i>			
Charges for pathology testing			
Public hospitals		18,462,656	16,778,178
Commonwealth grant		-	5,014,181
Other		<u>29,795,065</u>	<u>21,561,256</u>
		48,257,721	43,353,615
Community service obligation revenue		5,404,665	4,920,443
Research and education donations		743,633	867,271
<i>Revenue from non-operating activities</i>			
Interest		102,983	91,345
Total Revenue from Ordinary Activities		<u>54,509,002</u>	<u>49,232,674</u>
NET COST OF SERVICES		<u>7,728,269</u>	<u>7,170,503</u>
Revenues from Government			
Appropriations		5,940,000	3,006,341
Resources received free of charge	3	1,381,050	409,144
Asset values recognised	5	-	8,928,969
Total Revenue from Government		<u>7,321,050</u>	<u>12,344,454</u>
CHANGE IN NET ASSETS		(407,219)	5,173,951
TOTAL CHANGES IN EQUITY OTHER THAN THOSE RESULTING FROM TRANSACTIONS WITH WA GOVERNMENT AS OWNER		<u>\$ (407,219)</u>	<u>\$ 5,173,951</u>

The Statement of Financial Performance should be read in conjunction with the accompanying notes.

PathCentre Annual Report 2003

STATEMENT OF FINANCIAL POSITION as at 30 June 2003

	Note	2002/2003 \$	2001/2002 \$
Current Assets			
Cash Assets	6	1,836,073	2,182,984
Receivables	7	5,543,062	5,644,300
Inventories	8	1,717,382	1,737,263
Prepayments		58,766	17,000
Total Current Assets		<u>9,155,283</u>	<u>9,581,547</u>
Non-Current Assets			
Property, plant and equipment	9	14,310,159	15,203,859
Total Non-Current Assets		<u>14,310,159</u>	<u>15,203,859</u>
TOTAL ASSETS		<u>23,465,442</u>	<u>24,785,406</u>
Current Liabilities			
Accrued Salaries		2,738,244	2,379,464
Payables		2,305,432	4,178,753
Provisions	10	5,875,211	5,272,553
Interest-Bearing Liabilities	11	102,374	153,100
Total Current Liabilities		<u>11,021,261</u>	<u>11,983,870</u>
Non-Current Liabilities			
Provisions	10	3,463,412	3,311,174
Interest-Bearing Liabilities	11	182,045	284,419
Total Non-Current Liabilities		<u>3,645,457</u>	<u>3,595,593</u>
TOTAL LIABILITIES		<u>14,666,718</u>	<u>15,579,463</u>
NET ASSETS		<u>\$ 8,798,724</u>	<u>\$ 9,205,943</u>
EQUITY			
Accumulated surplus	12	8,798,724	9,205,943
TOTAL EQUITY		<u>\$ 8,798,724</u>	<u>\$ 9,205,943</u>

The Statement of Financial Position should be read in conjunction with the accompanying notes.

STATEMENT OF CASH FLOWS
for the year ended 30 June 2003

	Note	2002/2003 \$	2001/2002 \$
Cash flows from Government			
Recurrent Appropriations		5,940,000	3,006,341
Net cash provided by Government		5,940,000	3,006,341
Utilised as follows:			
Cash flows from operating activities			
Payments			
Payments to or on behalf of staff		(37,987,659)	(34,491,352)
Payments to suppliers		(24,187,573)	(18,780,416)
GST payments on purchases		(2,087,437)	(1,847,135)
Interest and finance charges paid		(19,679)	(33,920)
Receipts			
Receipts from clients and patients		50,170,413	39,752,113
Commonwealth grants		-	5,195,166
Community service obligation revenue received		5,404,665	4,920,443
GST receipts on sales		2,772,800	2,369,764
Research and education receipts		790,982	797,849
Interest received		102,983	91,345
Net cash used in operating activities	19	(5,040,505)	(2,026,143)
Cash flows from investing activities			
Payments for property, plant and equipment		(1,093,306)	(1,134,707)
Net cash used in investing activities		(1,093,306)	(1,134,707)
Cash flows from financing activities			
Finance leasing for acquisition of assets		(153,100)	(151,324)
Net cash used in financing activities		(153,100)	(151,324)
NET INCREASE/(DECREASE) IN FUNDS HELD		(346,911)	(305,833)
CASH BALANCE AT THE BEGINNING OF THE YEAR		2,182,984	2,488,817
CASH BALANCE AT THE END OF THE YEAR	6	\$ 1,836,073	\$ 2,182,984

The Statement of Cash Flows should be read in conjunction with the accompanying notes.

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

1. Statement of Accounting Policies

The following accounting policies have been adopted in the preparation of these financial statements. Unless otherwise stated these policies are consistent with those adopted in the preceding year.

(a) General Statement

The financial statements constitute a general purpose financial report which has been prepared in accordance with Accounting Standards, Statements of Accounting Concepts and other authoritative pronouncements of the Australian Accounting Standards Board, and Urgent Issues Group (UIG) consensus views as applied by the Treasurer's Instructions. Several of these are modified by the Treasurer's Instructions to vary application, disclosure, format and wording. The Financial Administration and Audit Act and the Treasurer's Instructions are legislative provisions governing the preparation of financial statements and take precedence over Accounting Standards, Statements of Accounting Concepts and other authoritative pronouncements of the Australian Accounting Standards Board, and over UIG consensus views. The modifications are intended to fulfil the requirements of general application to the public sector, together with the need for greater disclosure and to satisfy accountability requirements.

If any such modification has a material or significant financial effect on the reported results, details of that modification and where practicable, the resulting financial effect, are disclosed in individual notes to these financial statements.

Basis of Accounting

The financial statements have been prepared on the accrual basis of accounting using the historical cost convention except for certain assets and liabilities which, as noted, are measured at fair value.

(b) Valuation of non-current assets

Items have been included as non-current assets if:

- the purchase cost or valuation on acquisition is \$1,000 or more and the useful economic life is expected to be two years or more;
- the purchase cost is less than \$1,000 but collectively the assets represent a material investment, eg. furniture or computer equipment.

All non-current assets acquired from predecessor entities, other than buildings, were revalued on the formation of PathCentre. The revalued amounts were not materially different from the carrying values in the accounts of the predecessor entities. The value of buildings was not recognised as PathCentre had only the right to occupy them and did not have legal ownership.

In 2001/02 the value of the buildings controlled by PathCentre were recognised in accordance with Treasurer's Instruction 1103. The carrying value was arrived at by reference to the replacement capital value as determined in 2002 by the Valuer General, less depreciation for the years since the buildings were constructed.

Assets purchased since incorporation have been valued at cost.

(c) Leased assets

PathCentre's rights and obligations under finance leases, which are leases that effectively transfer to the agency substantially all the risks and benefits incident to ownership of the leased assets, are initially recognised as assets and liabilities equal in amount to the present value of the minimum lease payments. The assets are disclosed as leased equipment and are depreciated over the period during which the agency expects to benefit from use of the assets. Minimum lease payments are allocated between interest expense and reduction of the lease liability, according to the interest rate implicit in the lease.

Finance lease liabilities are allocated between current and non-current components. The principal component of lease payments due on or before the end of the succeeding financial year is disclosed as a current liability, and the remainder of the lease liability is disclosed as a non-current liability.

PathCentre has entered into operating lease arrangements for buildings and vehicles where the lessors effectively retain all of the risks and benefits incident to ownership of the items held under the operating leases. Equal instalments of the lease payments are charged to the Statement of Financial Performance over the lease term as this is representative of the pattern of benefits derived from the leased property.

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

1. Statement of Accounting Policies (continued)

(d) Depreciation and amortisation of fixed assets

Plant and equipment is depreciated over its estimated remaining useful life. Depreciation is calculated either on the reducing balance or straight line basis reflecting its future economics benefits. The following classes of asset are depreciated using the reducing balance method:

Buildings	5%
Laboratory equipment	15%
Computer hardware and software	30%
Office furniture and equipment	10%

The following classes of asset are depreciated using straight line method:

Leased laboratory equipment	25%
Facilities	10%

If any assets included in the fixed asset management system are sold, the surplus or deficit on disposal is taken into account in determining the results for the period.

(e) Inventories

Stocks are valued at the lower of cost and net realisable value, cost being assigned on a first in first out basis. Provision is made for obsolescence where considered necessary.

(f) Funds held under administration

Special purpose funds, administered by PathCentre and held for educational and research purposes, are included in cash resources. Receipts and payments of these monies during the period are included in PathCentre's operating income and expenditure, as the funds are received by staff members as agents for PathCentre and expended on activities effectively under the control of PathCentre's Board. They are specifically allocated to research and educational activities.

Details of fund balances are shown in Note 20.

(g) Employee benefits

(i) Provision for annual leave and Long Service Leave

These benefits are calculated at current remuneration rates. A liability for long service leave is recognised, and is measured as the present value of expected future payments to be made in respect of services provided by employees up to the reporting date. Consideration is given to expected future wage and salary levels including relevant on costs, experience of employee departures and periods of service.

The methods of measurement of the liabilities are consistent with the requirements of Australian Accounting Standard AASB 1028 "Employee Benefits".

(ii) Superannuation

Staff contribute to the Superannuation and Family Benefits Act Scheme, a pension scheme now closed to new members, or to the Gold State Superannuation Scheme, a lump sum benefit scheme now also closed to new members, both defined benefit schemes. A few staff members who were formerly members of the Superannuation Scheme for Australian Universities have elected to continue to contribute to that scheme. Staff who do not contribute to any of these schemes are required to be non-contributory members of the West State Superannuation Scheme, an accumulation fund complying with the Commonwealth Government's Superannuation Guarantee (Administration) Act 1992.

The liability for superannuation charges incurred under the Superannuation and Family Benefits Act pension scheme, together with the pre-transfer service liability for employees who transferred to the Gold State Superannuation Scheme, are provided for at reporting date. The superannuation liability has been established from information supplied by the Government Employees Superannuation Board as at 31 March 2003.

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

1. (g) Statement of Accounting Policies - Employee entitlements

(ii) Superannuation (continued)

The liabilities for superannuation charges under the Gold State Superannuation Scheme and the West State Superannuation Scheme are extinguished by quarterly payment of employer contributions to the Government Employees Superannuation Board.

The disclosure required by paragraph 6.10 of AASB 1028 (being the employer's share of the difference between employees' accrued superannuation benefits and the attributable net market value of plan assets) has not been provided. State scheme deficiencies are recognised by the State in its whole of government reporting. The Government Employees Superannuation Board's records are unable to provide the information for PathCentre. Accordingly, deriving the information for the agency is impractical under current arrangements and any benefits thereof would be exceeded by the cost of obtaining the information.

(iii) Accrued salaries

Amounts due to staff but unpaid at the end of the financial year as the end of the last pay period for that year does not coincide with the end of the financial year. The carrying amount is equal to fair value.

(h) Revenue recognition

Revenue from testing is recognised as income when the services are performed.

Community service obligation revenue does not necessarily relate to the value of the services provided and is recognised as income when received.

Appropriations are recognised as income when received.

(i) Statutory contribution

PathCentre is not required to make statutory contributions in lieu of any form of taxation.

(j) Comparative figures

Figures for the previous year have, where appropriate, been reclassified so as to be comparable with the figures in the current year.

(k) Cash

For the purposes of the statement of cash flows, cash includes cash on hand and at call deposits with banks or financial institutions, investments in money market instruments maturing within less than three months and net of bank overdrafts.

(l) Receivables and payables

Receivables are recognised at the amounts receivable and are due for settlement no more than 30 days from the date of recognition.

Collectibility of receivables is reviewed on an ongoing basis. Debts which are known to be uncollectible are written off. A provision for doubtful debts is raised where some doubts as to collection exists.

Payables, including accruals not yet billed, are recognised when the economic entity becomes obliged to make future payments as a result of a purchase of assets or services. Payables are generally settled within 30 days.

(m) Interest-Bearing liabilities

Borrowing costs expense is recognised on an accrual basis.

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

	2002/2003 \$	2001/2002 \$
2. Employee Expenses		
Salaries and wages	34,416,893	31,502,043
Superannuation	3,000,994	3,296,706
Charges to leave provisions	3,152,871	2,268,760
	<u>\$ 40,570,758</u>	<u>\$ 37,067,509</u>
3. Resources received free of charge		
Department of Health - capital user charge	1,354,550	389,144
Office of the Auditor-General - audit services	26,500	20,000
	<u>\$ 1,381,050</u>	<u>\$ 409,144</u>
<p>Treasury imposed a capital user charge on the Department of Health for 2002/03 based on the consolidated total net asset value for the 2001/02 financial year. The Department allocated a portion of the new charge to PathCentre. The Department will not require payment of the charge.</p> <p>Some PathCentre laboratory premises are provided at no cost by other government agencies. No estimate has been made of the value of these resources.</p>		
4. Other expenses from ordinary activities		
Maintenance	903,811	1,067,073
Carrying amount of non-current assets disposed of	299,534	146,436
Bad debts written off	24 5,989	30,050
	<u>\$ 1,209,334</u>	<u>\$ 1,243,559</u>
5. Asset values recognised		
Buildings, at valuation	<u>\$ -</u>	<u>\$ 8,928,969</u>
<p>In 2001/02 the value of the buildings controlled by PathCentre were recognised in accordance with Treasurer's Instruction 1103. The carrying value was arrived at by reference to the replacement capital value as determined in 2002 by the Valuer General, less depreciation for the years since the buildings were constructed.</p>		
6. Cash Assets		
Cash on hand	2,000	1,500
Bank balances:		
- Operating account	40	14,919
- Research trust fund	610,725	734,411
- Education fund	1,223,308	1,432,154
	<u>\$ 1,836,073</u>	<u>\$ 2,182,984</u>

Bank balances include a total of \$1,834,033 held in special purpose accounts administered for educational and research purposes. Details of these fund balances are shown in Note 20. PathCentre has discretion to use these funds for purposes other than those specified. Cash as shown in the Statement of Cash Flows is equivalent to cash assets.

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

	2002/2003 \$	2001/2002 \$
7. Receivables		
Trade debtors	5,236,111	5,406,248
Provision for doubtful debts	(211,247)	(140,000)
Other debtors	518,198	378,052
	\$ 5,543,062	\$ 5,644,300
8. Inventories		
Laboratory supplies	1,360,340	1,464,503
Maintenance goods	357,042	272,760
	\$ 1,717,382	\$ 1,737,263
9. Non-Current Assets		
Buildings, at valuation	8,928,969	8,928,969
Accumulated depreciation	870,577	446,449
	8,058,392	8,482,520
Laboratory equipment, at cost	8,466,100	8,233,546
Accumulated depreciation	4,157,320	3,890,426
	4,308,780	4,343,120
Leased laboratory equipment, at cost	1,139,086	1,139,086
Accumulated depreciation	877,398	729,738
	261,688	409,348
Computer hardware and software, at cost	2,809,716	2,996,114
Accumulated depreciation	1,831,888	1,806,187
	977,828	1,189,927
Office furniture and equipment, at cost	100,436	140,645
Accumulated depreciation	51,490	67,346
	48,946	73,299
Facilities, at cost	1,185,773	1,123,963
Accumulated depreciation	531,248	418,318
	654,525	705,645
Total net book value	\$ 14,310,159	\$ 15,203,859

Reconciliations of the carrying amounts of non-current assets at the beginning and end of the current and previous financial year are set out in Note 23.

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

	2002/2003 \$	2001/2002 \$
10. Provisions		
Current liabilities		
- liability for superannuation	94,839	157,126
- liability for annual leave	3,088,218	2,707,059
- liability for long service leave	2,692,154	2,408,368
	<u>\$ 5,875,211</u>	<u>\$ 5,272,553</u>
Non-current liabilities		
- liability for long service leave	2,288,725	2,008,594
- liability for superannuation	1,174,687	1,302,580
	<u>\$ 3,463,412</u>	<u>\$ 3,311,174</u>
<p>AAS 1028 has been applied to the determination of leave entitlements. The superannuation liability has been established from information supplied by the Government Employees Superannuation Board.</p>		
11. Interest-Bearing Liabilities		
Representing finance lease liabilities		
Current	102,374	153,100
Non-current	182,045	284,419
	<u>\$ 284,419</u>	<u>\$ 437,519</u>
<p>Lease liabilities are effectively secured as the rights to the leased assets revert to the lessor in the event of default.</p> <p>The carrying amounts of assets pledged as security are:</p>		
Finance lease		
Leased Laboratory Equipment	<u>\$ 261,688</u>	<u>\$ 409,348</u>
<p>Analysis of finance lease commitments:</p>		
Payable no later than one year	113,655	172,380
Payable later than one, not later than two years	85,488	113,654
Payable later than two, not later than five years	<u>106,861</u>	<u>192,349</u>
	306,004	478,383
Deduct: future finance charges	21,585	40,864
Provided as a liability	<u>\$ 284,419</u>	<u>\$ 437,519</u>
12. Accumulated Surplus		
Opening balance	9,205,943	4,031,992
Change in net assets	(407,219)	5,173,951
Closing balance	<u>\$ 8,798,724</u>	<u>\$ 9,205,943</u>

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

	2002/2003 \$	2001/2002 \$
13. Commitments for Expenditure		
Commitments to capital expenditure payable within 1 year	<u>\$ 72,115</u>	<u>\$ 331,027</u>
Commitments in relation to leases contracted for as at 30 June 2003 but not recognised as liabilities.		
Payable within 1 year:		
Motor vehicles lease	151,169	168,398
Building and accommodation lease	442,674	433,437
Lab and medical equipment lease	240,341	191,313
Non-Medical equipment lease	5,356	2,884
	<u>\$ 839,540</u>	<u>\$ 796,032</u>
Payable later than 1 year and no later than 5 years:		
Motor vehicles lease	\$ 84,413	\$ 61,739

14. Contingent Liabilities and Contingent Assets

Contingent Liabilities

PathCentre has been named as defendant in litigation relating to alleged medical negligence. Legal counsel have estimated the potential liability at \$158,000.

There were no other contingent liabilities at 30 June other than guarantees given to financiers of finance leases in respect of sums which are or become payable under the lease agreements. These finance lease commitments, less future finance charges, have been provided for as detailed in Note 11.

Contingent Assets

There are no contingent assets at 30 June.

15. Remuneration of Board and Senior Officers

The number of Board (the Accountable Authority) members whose total of fees, salaries, superannuation and other benefits for the financial year falls within the following bands are:

\$ Nil	1	2
\$ 0 - \$10,000	1	-
\$10,001 - \$20,000	-	2
\$20,001 - \$30,000	2	-
\$30,001 - \$40,000	-	1
\$50,001 - \$60,000	1	-
\$330,001 - \$340,000	-	1
\$380,001 - \$390,000	1	-

The total remuneration of Board members is: \$ 492,570 \$ 414,540

No Board members are members of the Pension Scheme.

The number of senior officers other than Board members whose total of fees, salaries, superannuation and other benefits for the financial year falls within the following bands are:

\$20,001 - \$30,001	1	-
\$70,001 - \$80,000	-	1
\$80,001 - \$90,000	-	1
\$90,001 - \$100,000	3	2
\$100,001 - \$110,000	2	1
\$110,001 - \$120,000	-	1
\$120,001 - \$130,000	1	-

The total remuneration of senior officers is: \$ 632,980 \$ 584,771

No Senior officers are members of the Pension Scheme.

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

	2002/2003	2001/2002
	\$	\$
16. Remuneration of auditor		
The total fee applicable to services provided by the Office of the Auditor General for the financial year is as follows:		
- for external audit	26,500	20,000
	<u>\$ 26,500</u>	<u>\$ 20,000</u>
The service is provided free of charge to PathCentre.		
17. Segment information		
In accordance with Treasurer's Instructions 1101 and 904 PathCentre has only one industry segment, the provision of pathology and related services under the Hospitals and Health Services Act 1927.		
The agency operates in one geographical segment, the state of Western Australia.		
18. Events occurring after reporting date		
No events have occurred after 30 June which would have materially affected these financial statements.		
19. Reconciliation of net cash used in operating activities to net cost of services		
Net cash used in operating activities	(5,040,505)	(2,026,143)
Non cash expenses:		
- depreciation	(1,687,472)	(1,787,526)
- loss on disposal of assets	(299,534)	(146,436)
- resources received free of charge	(1,381,050)	(409,144)
Increase/(decrease) in receivables	(101,238)	(185,736)
Increase/(decrease) in inventories	(19,881)	132,458
Increase/(decrease) in prepayments	41,766	(16,629)
Decrease/(increase) in payables	1,873,321	(1,335,664)
Decrease/(increase) in provisions	(1,113,676)	(1,395,683)
Net cost of services	<u>\$ (7,728,269)</u>	<u>\$ (7,170,503)</u>

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

	2002/2003	2001/2002
	\$	\$
20. Special Purposes Funds		
Funds administered for educational and research purposes:		
PathCentre Education Fund	<u>1,223,308</u>	<u>1,432,154</u>
PathCentre Research Funds:		
MERIWA	5,191	-
PathCentre Donation Research Fund	1,126	828
Research Account - Biochemistry	18,650	71,762
NHMRC Research Account	1,630	3,730
BioSecurity	2,205	-
Food borne Surveillance Research	-	594
NHF HDL Metabolism	383	-
Leukaemia Research Fund	7,205	6,933
Haematology Departmental Fund	-	22,797
Biochemistry Special Purpose Fund	4,376	104
Haematology Special Purpose Fund	22,698	22,560
Histopathology Special Purpose Fund	33,348	26,437
Clinical Microbiology Special Purpose	750	675
Pharmacology Special Purpose Fund	20,705	24,051
Clinical Immunology Special Purpose	7,049	4,162
Heart Search Cardiovascular Genomic Fellow	76,112	21,420
Conve Scientific Solutions	12,030	5,278
Forensic Special Purpose Fund	9,906	5,576
F 93/4 G. Kent	4,389	36
Clinical Biochemistry Dept. Fund	48,424	45,721
Forensic Research & Education Fund	43,436	39,155
Angiogenesis in breast cancer	5,599	5,388
Clinical Drug Trials Research Fund	2,502	94,498
Branch Laboratories Special Purpose Fund	12,963	9,869
Office of CEO's Special Purpose Fund	2,456	3,723
PathCentre Staff Incentive Fund	15,322	15,172
Thalassaemia Workshop Account	-	7,822
Water Quality - Cooperative Research Centre	385	113
Biochemistry PhD Scholarship Fund	367	66
Drug Excretion in Breast Milk Fund	19,088	28,572
Population patterns of exposure to asbestos and future risks	14,204	13,669
WA Quality Plan Submissions	-	13,148
Cancer Foundation Grant	7,406	8,146
Infectious Disease Epidemiology	409	4,328
Community Based Screen for Genetic Haemochromatosis	2,632	3,406
Antioxidant Status	17,899	15,117
Clinical Best Practice in Blood Transfusion	175,630	209,153
Microarray Research	409	402
AP Clinical Trials	13,841	-
	<u>\$ 610,725</u>	<u>\$ 734,411</u>
The special purposes funds include the following received during the year for specific purposes:-		
Education Trust funds	<u>\$ 54,851</u>	<u>\$ 47,227</u>
At 30 June PathCentre held monies received as donations revenue that had not been expended. These form part of the special purpose funds administered by the agency. These unexpended contributions were held for the following purposes:		
Education of Medical Staff	<u>1,223,308</u>	<u>1,432,154</u>
	<u>\$ 1,223,308</u>	<u>\$ 1,432,154</u>

**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2003**

21. Comparison of Results (continued)

(b) Significant variations between estimates (section 42) and actual results

	Actual \$000	Estimates \$000
Operating expenses		
Employee expenses	40,571	38,941
Goods and services	18,624	17,356
Depreciation	1,687	1,475
Capital user charge	1,355	-
	<u>62,237</u>	<u>57,772</u>
Revenue		
Public hospitals	18,463	21,775
Other testing	29,795	27,050
Community service obligations	5,405	5,108
Sundry	846	800
Appropriations	7,321	2,940
	<u>61,830</u>	<u>57,673</u>
Change in net assets	<u>\$ (407)</u>	<u>\$ (99)</u>

Reasons for significant variations:

- (i) Staff costs were higher than estimated because of the effect of higher than expected salary increases and because extra staff were engaged to handle higher than expected test volumes.
- (ii) Cost of goods and services was higher than estimated in line with the higher test volumes.
- (iii) Depreciation was higher than anticipated because the need to depreciate buildings was not foreseen at the time the Estimates were prepared.
- (iv) The capital user charge was not included in the Estimates.
- (v) The Estimates were based on a necessary price increase to public hospitals in respect of their pathology testing requirements. The Department of Health declined to allow the increase.
- (vi) The positive variance in other testing revenue reflects higher than expected test volumes particularly in priced services.
- (vii) Appropriations were higher than anticipated because: the Department provided \$3 million to offset its refusal to approve a necessary increase in prices charged to public hospitals; and because of the large increase in the capital user charge which the Department subsidises.

**NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS
for the year ended 30 June 2003**

22. Financial instruments

(a) Interest rate risk

PathCentre's exposure to interest rate risk, which is the risk that a financial instrument's value will fluctuate as a result of changes in market interest rates and the effective weighted average interest rates on those financial assets, is as follows:

	weighted average		floating interest		fixed interest rate maturing:						non-interest		Total	Total
	effective interest		rate		within 1 year		1 to 5 years		over five years		bearing			
	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002	2003	2002
	%	%	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000	\$000
<i>Financial assets</i>														
Cash resources	4.9	4.7	1,836	2,183	-	-	-	-	-	-	-	-	1,836	2,183
Accounts receivable	-	-	-	-	-	-	-	-	-	-	-	-	5,543	5,644
			<u>1,836</u>	<u>2,183</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>7,379</u>	<u>7,827</u>
<i>Financial liabilities</i>														
Accounts payable	-	-	-	-	-	-	-	-	-	-	-	-	2,305	4,179
Finance lease liabilities	4.5	5.8	-	-	102	153	182	284	-	-	-	-	-	284
Employee entitlements	-	-	-	-	-	-	-	-	-	-	-	-	12,076	10,963
			<u>-</u>	<u>-</u>	<u>102</u>	<u>153</u>	<u>182</u>	<u>284</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>14,381</u>	<u>15,142</u>
													<u>14,665</u>	<u>15,579</u>

(b) Credit risk

The maximum exposure to credit risk, excluding the value of any collateral or other security, at reporting date to recognised financial assets is the carrying amount, net of any provisions for doubtful debts, as disclosed in the statement of financial position and notes to and forming part of the financial statements.

PathCentre does not have any material credit risk exposure to any single debtor or group of debtors under financial instruments.

(c) Net fair values

Methods and assumptions used in determining net fair value are as follows:

For assets and liabilities the net fair value approximates the carrying value. No financial assets and financial liabilities are readily traded on organised markets in standardised form, other than listed investments. PathCentre has no financial assets where the carrying value exceeds net fair value at reporting date.

The aggregate net fair values and carrying amounts of financial assets and financial liabilities are disclosed in the statement of financial position and in the notes to and forming part of the financial statements.

PathCentre Annual Report 2003

NOTES TO AND FORMING PART OF THE FINANCIAL STATEMENTS for the year ended 30 June 2003

23. Reconciliations of the carrying amounts of non-current assets

	Buildings	Laboratory Equipment	Leased Laboratory Equipment	Computer Hardware and Software	Office Equipment	Facilities	Total
2003							
Carrying amount at start of year	8,482,520	4,343,120	409,348	1,189,927	73,299	705,645	15,203,859
Values recognised	-	-	-	-	-	-	0
Additions	-	793,369	-	238,127	-	61,810	1,093,306
Disposals	-	(184,921)	-	(96,931)	(17,682)	-	(299,534)
Depreciation	(424,128)	(642,788)	(147,660)	(353,295)	(6,671)	(112,930)	(1,687,472)
Carrying amount at end of year	<u>\$ 8,058,392</u>	<u>\$ 4,308,780</u>	<u>\$ 261,688</u>	<u>\$ 977,828</u>	<u>\$ 48,946</u>	<u>\$ 654,525</u>	<u>\$ 14,310,159</u>
2002							
Carrying amount at start of year	-	4,574,452	227,328	1,122,207	80,705	682,700	6,687,392
Values recognised	8,928,969	-	-	-	-	-	8,928,969
Additions	-	491,346	386,750	461,020	-	129,419	1,468,535
Disposals	-	(61,737)	-	(31,774)	-	-	(93,511)
Depreciation	(446,449)	(660,941)	(204,730)	(361,526)	(7,406)	(106,474)	(1,787,526)
Carrying amount at end of year	<u>\$ 8,482,520</u>	<u>\$ 4,343,120</u>	<u>\$ 409,348</u>	<u>\$ 1,189,927</u>	<u>\$ 73,299</u>	<u>\$ 705,645</u>	<u>\$ 15,203,859</u>

	2002/2003	2001/2002
	\$	\$

24. Supplementary financial information

Write-Offs by the Accountable Authority:

Assets	299,534	146,436
Bad debts	5,989	30,050
	<u>305,523</u>	<u>176,486</u>

25. Net loss on disposal of non-current assets

Laboratory Equipment		
At Cost	560,815	113,101
Accumulated depreciation	<u>375,894</u>	<u>51,364</u>
Book Value	<u>184,921</u>	<u>61,737</u>
Computer hardware and software		
At Cost	424,525	110,035
Accumulated depreciation	<u>327,594</u>	<u>78,261</u>
Book Value	<u>96,931</u>	<u>31,774</u>
Office furniture and equipment		
At Cost	40,209	-
Accumulated depreciation	<u>22,527</u>	<u>-</u>
Book Value	<u>17,682</u>	<u>-</u>
Book value of assets disposed of	299,534	93,511
Book value of stock disposed of	-	52,925
Consideration on disposal of assets	-	-
Loss on disposal of assets	<u>\$ 299,534</u>	<u>\$ 146,436</u>

ANNUAL ESTIMATES

ANNUAL ESTIMATES

PathCentre's annual estimates for 2003/2004 have been submitted to the Minister for approval under Section 42 of the *Financial Administration and Audit Act*.

The draft budgets show a prospective operating profit of \$127,000, as follows.

	\$000
Operating income	64,856
Operating costs	<u>64,729</u>
Operating profit	<u>\$127</u>

The estimates assume that Government, via the Department of Health, will pay a realistic subsidy to cover losses incurred in providing uneconomic services at branch laboratories, particularly those in rural areas. If adequate subsidy for these services is not forthcoming either the loss for the year will be considerably higher or services in rural areas will have to be curtailed.

APPENDICES

NATIONAL AND INTERNATIONAL SCIENTIFIC LECTURES AND SCIENTIFIC PRESENTATIONS BY STAFF

In addition to the following list, PathCentre staff have attended and participated in other State, National and International meetings and conferences. Only formal presentations are listed here.

Dr JP Beilby:

September 2002

Poster Presentation (Best poster award): "A polymorphism in the IL-6 gene promoter (G-174C) is associated with subclinical carotid atherosclerosis in a community population." Chapman CML, Hung J, Thompson PLT, Beilby JP.

Presentation: "Decreased risk of breast cancer with higher serum folate levels: a case-control study." Beilby JP, Ingram D, Hähnel R, Rossi E.

Poster Presentation: "A polymorphism in the IL-6 gene promoter (G-174C) is associated with subclinical carotid atherosclerosis in a community population." Chapman CML, Hung J, Thompson PLT, Beilby JP.

Poster Presentation: "Folate and vitamin B-12 and fatal cardiovascular disease: The Busselton Health Study." Beilby JP, Hung J, Knuiman M, Divitini M.

Poster Presentation: "Interleukin-6 and high sensitivity C-reactive protein as predictors of subclinical carotid atherosclerosis." Chapman CML, Beilby JP, Thompson PLT, Hung J.

40th Australasian Association of Clinical Biochemists (AACB) Annual Scientific Meeting, Adelaide, SA.

February 2003

Invited Speaker: "Laboratory tests for diabetes". Royal College of Pathologists of Australasia (RCPA)/ Australasian Association of Clinical Biochemists (AACB) Chemical Pathology Course, Launceston, TAS.

Dr A Buck:

November 2002

Invited Speaker: "The Autumn of terror: forensic evidence of Jack the Ripper murders.", Annual General Meeting, The Australian and New Zealand Forensic Science Society (WA Branch), Perth, WA.

Dr GA Cadden:

August 2002

Invited Speaker: Forensic Pathology course, Centre for Forensic Science, University of Western Australia (UWA), Perth, WA.

October 2002

Invited Speaker: "Forensic aspects of trauma." Accident & Emergency Nursing Inservice Training, Royal Perth Hospital, Perth, WA.

October 2002

Invited Speaker: "Hitchhiker's guide to wounds and the coroner." 45th Annual Scientific Convention & Annual General Meeting (AGM), Royal Australian College of General Practitioners, Perth, WA.

January 2003

Invited Speaker: Summer Forensic Symposium, PathCentre, Nedlands, Perth, WA.

Dr K Carson:

September 2002

Presentation: "Iron status and invasion in *Burkholderia cepacia*." Australian Society for Microbiology Annual Meeting, Melbourne, VIC.

Dr P Caterina:

April 2003

Poster Presentation: "Does HCV NS5A PKRBD sequence or PKR activation status predict treatment response in Australian Chronic HCV patients?" MacQuillan GC, Nui X, Caterina P, De Boer WB, Speers D, Platten MA, Harnett GB, Reed WB and Jeffrey GP. 11th Triennial International Symposium on Viral Hepatitis and Liver Disease, Sydney, NSW.

October 2002

Poster Presentation: "The safety of aerosolised DETA/NO after inhalation in piglets." Lam CF, Van Heerden PV, Illett KF, Caterina P, Filion F.

Poster Presentation: "Polymorphonuclear Neutrophil (PMN) Ratio – a novel method of assessing acute lung injury and/or inflammation." Lam CF, Van Heerden PV, Illett KF, Caterina P, Filion F.

27th Australian and New Zealand Annual Scientific Meeting on Intensive Care, Perth, WA.

Dr C Chapman:

May 2002

Poster Presentation: "Interleukin-6 and high sensitive C-reactive protein as predictors of subclinical carotid atherosclerosis." Chapman CML, Beilby JP, Thompson PLT, Hung J.

Poster Presentation: "A polymorphism in the IL-6 gene promoter (G-174C) is associated with subclinical carotid atherosclerosis in a community population." Chapman CML, Hung J, Thompson PLT, Beilby JP.

14th World Congress of Cardiology, Sydney, NSW.

Mr C Choo:

October 2002

Poster Presentation: "Blue smears: a new artefact in Fine Needle Aspirate (FNA) smears due to formalin vapour." Australian Society of Cytology Annual Scientific Meeting, Sydney, NSW.

Dr WB De Boer:

October 2002

Presentation: "Fine Needle Aspirate (FNA) Lymph Node: to be or not to be Hodgkin's, that is the question?" Australian Society of Cytology Annual Scientific Meeting, Sydney, NSW.

May 2003

Presentation: "Screen detected fibroadenomatoid hyperplasia: a benign diagnosis for a localised cluster of calcifications. Pseudoangiomatous Stromal Hyperplasia (PASH)." Breast Screen WA: Breast Cancer Diagnosis and Management Update, Perth, WA.

May 2003

Presentation: "Gastric lymphomas." International Academy of Pathology (Australasian Division) Annual Scientific Meeting, Sydney, NSW.

May 2003

Poster Presentation: "Does HFE compound heterozygosity result in hepatic iron overloading?" De Boer WB, Rossi E, Lim EM, Jeffrey GP. International Academy of Pathology (Australasian Division) Annual Scientific Meeting, Sydney, NSW.

May 2003

Poster Presentation: "Potential use of hepatic R₂ magnetic resonance image texture characteristics in the staging of fibrosis in hemochromatosis." Pontré B, De Boer WB, Jeffrey G, Olynyk J, Chua-anusorn W, Clark P, St. Pierre T.

Poster Presentation: "Potential discrimination of cirrhotic liver from disease-free liver by proton transverse relaxation rate magnetic resonance imaging (R2-mri)." Clark P, Chua-anusorn W, St. Pierre T, Jeffrey G, Olynyk J, De Boer WB.

Bioiron Conference, Washington DC, USA.

Ms A Downs:

October 2002

Poster Presentation: "A custom designed microarray for expression analysis studies in B cell chronic lymphocytic leukemia." WA Human Genetics Research Forum, Perth, WA.

May 2003

Presentation: "Out damn spot! Microarrays in malignant haematology." Haematology Society of Australia and New Zealand (WA Branch) Meeting, Australian Red Cross, Perth, WA.

Mr LJ Dusci:

September 2002

Invited Speaker: "Drug testing in the workplace." Ravensthorpe Nickel Operations, Ravensthorpe, WA.

November 2002

Invited Speaker: "Drug testing in the workplace." Premier Coal Pty Ltd, Collie, WA.

November 2002

Invited Speaker: "Cannabis re-use" and "Urine substitution – Case studies." Austox Workshop, Sydney, NSW.

Dr WN Erber:

October 2002

Presentation: "Haemato-Oncology Diagnosis Service." National Health Service, Eastern Region Blood Club, London, UK.

February 2003

Presentation: "Morphology of myelodysplasia." London Haematology Registrar Educational Day, London, UK.

February 2003

Presentation: "The Eastern Region Haemato-Oncology Diagnosis Service." Kings Lynn, UK.

April 2003

Poster Presentation: "Primary anaplastic large cell lymphoma of the bone marrow." British Society of Haematology Meeting, Glasgow, Scotland.

Mr S Fletcher:

May 2003

Invited Speaker: "Errors and pitfalls in immunoassay." 2003 AIMS/ASM/ASOC Country Weekend Scientific Meeting, Margaret River, WA.

Dr FA Frost:

October 2002

Poster Presentation: "Blue smears: a new artefact in Fine Needle Aspirate (FNA) smears due to formalin vapour." Australian Society of Cytology Annual Scientific Meeting, Sydney, NSW.

Dr CL Golledge:

August 2002

Invited Speaker: "Travel health hazards, medications for prophylaxis and treatment."

Invited Speaker: "Travel medicine workshop."

Invited Speaker: "Treatment of common infectious diseases."

Invited Speaker: "Infectious diseases workshop."

Invited Speaker: "Fungal infection – external and internal."

Invited Speaker: "Fungal infections workshop."

3rd Moving Forward in Medicine Conference, Pharmaceutical Society of Australia, Beijing, China.

Invited Speaker: "Antibiotics in general practice." Fulham General Practitioners, Perth, WA.

September 2002

Invited Speaker: "Bioterrorism – germ warfare." South Perth Clinical Society, Perth, WA.

October 2002

Invited Speaker: "4th generation fluoroquinolones – The right drugs for which bugs." Bayer Specialist Meeting, Perth, WA.

Invited Speaker: "Meningococcal disease – facts and controversies." PathCentre Doctors Forum, Katanning, WA.

Invited Speaker: "Lab investigations / specimen collection / transport." Sexually Transmitted Infections (STI) Workshop, WA Country Health Service, Pilbara-Gascoyne Health Region, Port Hedland Regional Hospital, Port Hedland, WA.

Invited Speaker: "Antibiotic resistance in Australia." 27th Australian and New Zealand Annual Scientific Meeting on Intensive Care, Perth, WA.

December 2002

Chair: "Implant associated infection."

Invited Speaker: "Public health aspects – Creutzfeldt-Jakob disease."

8th Western Pacific Congress on Chemotherapy and Infectious Diseases, Perth, WA.

February 2003

Invited Speaker: "Development of resistance – a WA perspective." AstraZeneca Specialist Meeting, Adelaide, SA.

March 2003

Invited Speaker: "TB or not TB? Atypical and non-responsive pneumonias. What the GP should know." Western Australia Centre for Remote and Rural Medicine Annual Conference, Perth, WA.

Invited Speaker: "Meningococcal disease – facts and controversies." PathCentre Doctors Forum, Albany, WA.

May 2003

Invited Speaker: "Modern use of gentamicin and newer antibiotics." Infection in Surgical Patients, St John of God Healthcare Specialist Meeting, Perth, WA.

June 2003

Invited Speaker: "Parasitology". West Australian Centre for Remote and Rural Medicine, Aboriginal Medical Service Weekend, Perth, WA.

Mr LP Hackett:

November 2002

Poster Presentation: "Moclobemide poisoning: toxicokinetics and occurrence of serotonin syndrome." Isbister GK, Hackett LP, Dawson AH, Whyte IM. Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT) Conference, Melbourne, VIC.

Mr G Harnett:

July 2002

Poster Presentation: "Human metapneumovirus infections in Western Australia." Harnett GB, Fegredo CD, Chidlow GR, Cattell JA, Smith DW. Joint meeting of 10th International Congress of Bacteriology and Applied Microbiology, 10th International Congress of Mycology, 12th International Congress of Virology, Paris, France.

September 2002

Poster Presentation: "Development of a PCR for the diagnosis of Donovanosis." Harnett GB, Chidlow GR, Fegredo DC, Smith DW, Snowball B. Australian Society for Microbiology Annual Meeting, Melbourne, VIC.

Assoc Prof JM Harvey:

August 2002

Poster Presentation: "Inhibition of the G1-S phase cell cycle transition by 5 α -dihydrotestosterone." Greeve MA, Harvey JM, Bentel JM. 13th Annual Combined Biological Sciences Meeting, Perth, WA.

December 2002

Poster Presentation: "5 α -dihydrotestosterone inhibits human breast cancer cell proliferation by targeting the G1-S phase transition." Greeve MA, Allan RK, Harvey JM, Bentel JM. 42nd Annual Meeting of The American Society for Cell Biology, San Francisco, USA.

May 2003

Invited Speaker: "Burned out DCIS (BODCIS): relevance to core biopsy diagnosis of mammographically detected calcifications." Harvey JM, Sterrett GF, Frost FA. BreastScreen WA Continuing Professional Development Weekend Breast Cancer Diagnosis and Management Update, Perth, WA.

June 2003

Invited Speaker: "Diagnosis, current research and treatment of breast cancer". Zonta International Women's Health Seminar on Breast Cancer Research and Treatment, Mandurah, WA.

Mr F Haverkort:

February 2003

Presentation: "Report on the atypical mycobacteria survey 2000."

Presentation: "Review of guidelines for assuring quality control of media used for the cultivation of mycobacteria."

Presentation: "Review of quality assurance programmes for mycobacterium reference laboratories." Special Interest Group in Mycobacteria (Australian Society for Microbiology), Sydney, NSW.

Dr PN Hollingsworth:

March 2003

Invited Lecturer: "Acetyl choline receptor antibodies." The Pathology Update 2003, Sydney, NSW.

Assoc Prof KF Ilett:

August 2002

Invited Lecturer: "Potions and problems – an update of drug interactions for general practitioners and pharmacists." Perth & Hills Division of General Practice, Midland, WA.

September 2002

Invited Lecturer: "Update of drug use in breastfeeding." King Edward Memorial Hospital Breastfeeding Potpourri Seminar, Agnes Walsh House, Perth, WA.

October 2002

Invited Lecturer: "Drugs and breastfeeding in the perinatal period." Australian Lactation Consultants Association Annual Scientific Meeting, Perth, WA.

November 2002

Presentation: "Target plasma concentration effects relationships for olanzapine in schizophrenia." Ilett KF, Fellows L, Ahmad F, Castle DJ, Dusci LJ, Bulsara MK. Proceedings of the Australian Health & Medical Research Congress, Abstract # 422.

Poster Presentation: "Pseudoephedrine – effects on milk production in women and estimation of infant exposure via breastmilk." Hackett LP, Ilett KF, Aljazaf K, Hale TW, Hartmann PE, Mitoulas LR, Kristensen JH. Proceedings of the Australian Health & Medical Research Congress, Abstract # 2150. Australasian Society of Clinical and Experimental Pharmacologists and Toxicologists (ASCEPT), Melbourne, VIC.

November 2002

Invited Lecturer: "Olanzapine - monitoring plasma concentrations to optimise treatment in adults, and milk concentrations to assess risk for breastfed infants." Centre for Clinical Research in Neuropsychiatry, Graylands Hospital, Perth, WA.

February 2003

Presentation: "Population pharmacokinetics of piperaquine in adults and children with uncomplicated falciparum or vivax malaria." Ilett KF, Hung T-Y, Davis TME, Karunajeewa H, Hewitt S, Denis MB, Lim C, Socheat D. Population Analysis Group of Australia and New Zealand Annual Scientific Meeting, Sydney, NSW.

Dr TJJ Inglis:

July 2002

Invited Speaker: "Catch a tiger by the tail: identifying melioidosis antigenic determinants."

Invited Speaker: "EIDIOR and the emerging infectious diseases network."

Invited Speaker: "Real time molecular epidemiology."

Combined Asia Pacific Congress on Animal, Plant Microbial Toxins and 11th Annual Scientific Meeting of the Australian College of Tropical Medicine, Cairns, QLD.

November 2002

Presentation: "Preliminary studies on the cellular pathogenesis of melioidosis." 4th Louis Pasteur Conference on Infectious Diseases, Paris, France.

December 2002

Presentation: "Pathogenesis of melioidosis." Western Pacific Congress on Chemotherapy and Infectious Diseases, Perth, WA.

December 2002

Presentation: "Real time molecular epidemiology – our experience with listeriosis." Ozfood Meeting, Perth, WA.

March 2003

Poster Presentation: "Assessing the melioidosis risk."

Poster Presentation: "White powder incidents in Western Australia during late 2001: some lessons learned." American Society of Microbiology future directions for biodefense research: development of countermeasures, Baltimore, USA.

March 2003

Poster Presentation: "Towards a *Burkholderia pseudomallei* typing service". Burkholderia Genome Conference, Cambridge, UK.

Assoc Prof DA Joyce:

June 2002

Poster Presentation: "IKKa activates Tcf signaling and cyclin D1 through an interaction with and phosphorylation of β -catenin." Albanese C, Wu K, D'Amico M, Jarrett C, Attuga F, Joyce D, Hughes J, Hult J, Sakamaki T, Fu M, Ben Ze'ev A, Bromberg J, Lamberti A, Lin K, Gaynor R, Byers S, Pestell R. The Endocrine Society's 84th Annual Meeting, San Francisco, USA.

Dr GN Kent:

September 2002

Invited Speaker: "Continuing professional development: lifting the standards – the AACB perspective." 40th Australasian Association of Clinical Biochemists (AACB) Annual Scientific Meeting, Adelaide, SA.

February 2003

Invited Speaker: "Assays for Vitamin D."

NITTY Presentation: "Control of Osteoclast function and differentiation."

Royal College of Pathologists of Australasia (RCPA)/ Australasian Association of Clinical Biochemists (AACB) Chemical Pathology Course, Launceston, TAS.

Dr S Knott:

September 2002

Invited Speaker: "Reconstruction of skeletal remains – a new technique."

Invited Speaker: "The facial reconstruction of murder victims of the Dutch vessel Batavia wrecked on the coast of Western Australia 1629." 10th Biennial Scientific Meeting of the International Association for Craniofacial Identification, Bari, Italy.

Ms M Lewer:

September 2002

Invited Speaker: "Cedia Cyclosporin Plus evaluation." Microgenics User's Group, 40th Australasian Association of Clinical Biochemists (AACB) Annual Scientific Meeting, Adelaide, SA.

Mr MD Linden:

April 2002

Invited Speaker: "Haemostasis in cardiac surgery." Department of Haematology, Royal North Shore Hospital, Sydney, NSW.

January 2003

Invited Speaker: "Haemostasis in cardiac surgical patients." Department of Interventional Cardiology, Umass Memorial Hospital, Massachusetts, USA.

Dr RJ Murray:

December 2002

Proffered Paper: "Community-acquired oxacillin resistant *Staphylococcus aureus* bacteraemia in the Top End of Australia, 1997-2001." Murray RJ, Margus J, Lum G. 8th Western Pacific Congress on Chemotherapy and Infectious Diseases, Perth, WA.

Mr SJ O'Halloran:

March 2003

Invited Speaker: "Laboratory testing for Drugs of Abuse." Family Court of Western Australia, Perth, WA.

June 2003

Invited Speaker: "Laboratory testing for Drugs of Abuse." Community Justice Services, Maddington, WA.

Dr TV Riley:

July 2002

Presentation: "Surgical site infections following orthopaedic surgery: statewide surveillance using linked administrative databases." Health Data Linkage Symposium, Sydney, NSW.

July 2002

Invited Speaker: "The epidemiology of *Clostridium difficile*-associated diarrhoea." Investigation Unit, Hospital Vega Baja, Orihuela (Alicante), Spain.

August 2002

Invited Speaker: "An update on Rural Industries Research & Development Corporation funded research at The University of Western Australia." Australian Tea Tree Industry/Wollongbar Agricultural Institute Annual Tea Tree Symposium, Wollongbar, NSW.

March 2003

Invited Speaker: "New trends in the epidemiology and control of *Clostridium difficile* disease." Université Libre de Bruxelles-Hopital Erasme, Bruxelles, Belgium.

April 2003

Invited Speaker: "Automated surveillance for healthcare related infections." Université Libre de Bruxelles, Department of Public Health, Bruxelles, Belgium.

May 2003

Invited Speaker: "Reducing the burden of *Clostridium difficile*-associated diarrhoea." European Congress of Clinical Microbiology and Infectious Diseases, Glasgow, Scotland.

May 2003

Invited Speaker: "The epidemiology of MRSA in Western Australia – lessons for Europe?" Université Libre de Bruxelles-Hopital Erasme, Bruxelles, Belgium.

June 2003

Invited Speaker: "*Erysipelothrix* infections – forgotten but not gone." Université Libre de Bruxelles-Hopital Erasme, Bruxelles, Belgium.

June 2003

Invited Speaker: "The diagnosis and epidemiology of *Clostridium difficile*-associated diarrhoea." University of Rotterdam, Rotterdam, The Netherlands.

June 2003

Invited Speaker: "Alternative therapies for infectious diseases." Université Catholique de Louvain, Unité de Microbiologie, Bruxelles, Belgium.

Dr P Robbins:

May 2003

Invited Speaker: "Selected aspects of the surgical pathology of meningiomas."

Invited Speaker: "Intracranial inflammatory myofibroblastic tumour."

International Academy of Pathology (Australasian Division) Annual Scientific Meeting, Sydney, NSW.

Dr E Rossi:

September 2002

Presentation: "Validation of biochemical markers of liver fibrosis in hepatitis C." Rossi E, Adams L, Prins A, De Boer WB, Speers D, Macquillan G, Garas G, Jeffrey G.

Poster Presentation: "HFE gene mutations and diabetes in an urban Australian community." Davis TME, Beilby JP, Olynyk J, Jeffrey G, Rossi E.

40th Australasian Association of Clinical Biochemists (AACB) Annual Scientific Meeting, Adelaide, SA.

March 2003

Invited Speaker: "Shipwreck survivors and inherited disease." WA Maritime Museum, Victoria Quay, Fremantle, WA.

May 2003

Poster Presentation: "Risk factors for hepatic iron loading in HFE compound heterozygotes." Rossi E, Lim EM, De Boer WB, Jeffrey GP. Biolron 2003 Conference, Washington DC, USA.

Dr DW Smith:

August 2002

Invited Speaker: "Nucleic acid techniques in-house validation." 19th National Reference Laboratory Workshop on Serology, Melbourne, VIC.

October 2002

Invited Lecturer: "Applying new technologies to controlling Sexually Transmitted Infections (STI)." School of Biomedical Sciences, The University of Western Australia, Perth, WA.

December 2002

Invited Speaker: "Rapid tests for the diagnosis of influenza." 8th Western Pacific Congress on Chemotherapy and Infectious Diseases, Perth, WA.

February 2003

Invited Speaker: "Antivirals, diagnostics, clinical impact and management." Influenza Specialist Group, Melbourne, VIC.

March 2003

Presentation: "West Nile virus from New York: could it come here and would we know?"

Presentation: "Predicting the impact of new HPV vaccines on carcinoma of the uterine cervix in Western Australia."

Communicable Diseases Control Conference, Canberra, ACT.

Dr DV Spagnolo:

October 2002

Convenor: Soft Tissue Tumour Symposium, Royal College of Pathologists of Australasia (RCPA) (WA Branch), Perth, WA.

March 2003

Invited Speaker: "Pathology of T-cell and NK-cell neoplasms."

Chairman: Eva Raik Lecture, Plenary Session in Immunohaematology.

Pathology Update 2003, RCPA. Sydney, NSW.

March 2003

Invited Speaker: "Sclerosing perineurioma." Specialty Conference in Surgical Pathology, United States-Canadian Academy of Pathology, Washington, USA.

June 2003

Invited Speaker: "Soft tissue perineurioma." Soft Tissue Companion Club Meeting, 29th Annual Scientific Meeting (ASM) of the International Academy of Pathology (IAP), Sydney, NSW.

Dr DJ Speers:

September 2002

Invited Speaker: "Infectious diseases and the pre-hospital practitioner." Australian College of Ambulance Professionals Inaugural Meeting, Perth, WA.

Mr JME Taylor:

February 2003

Poster Presentation: "Evidence that general genomic hypomethylation and focal hypermethylation are two independent molecular events in malignant lymphoproliferative disease." Pelham JT, Franchina M, Taylor JME, Kay PH. 24th Annual Conference on the Organisation and Expression of the Genome, Lorne, VIC.

Dr D Whitaker:

July 2002

Invited Speaker/Co-ordinator: "The Eastbourne advanced cytology tutorial." Eastbourne, UK.

September 2002

Invited Speaker: "Cytopathology of malignant mesothelioma." 42nd Annual Scientific Meeting. British Society for Clinical Cytology, Belfast, Northern Ireland.

October 2002

Invited Speaker: "Cytology of serous effusions." 32nd Annual Scientific Meeting, Australian Society of Cytology, Sydney, NSW.

Dr VM Williams:

October 2002

Presentation: "Interpreting crowded sheets In Pap smears – seeking an optimal approach." Australian Society of Cytology Annual Scientific Meeting, Sydney, NSW.

PUBLICATIONS

2002/03 articles endorsed as 'in press' have not been included.

Adams L, Jeffrey GP, **de Boer WB**, Garas G. Ticlopidine-associated cholestatic hepatitis. *Intern Med J* 2002;32:359-60.

Albanese C, Wu K, D'Amico M, Jarrett C, **Joyce D**, Hughes J, Hulit J, Sakamaki T, Fu M, Ben-Ze'ev A, Bromberg JF, Lamberti C, Verma, U, Gaynor RB, Byers SW, Pestell RG. IKK α regulates mitogenic signaling through transcriptional induction of cyclin D1 via Tcf. *Mol Biol Cell* 2003;14:585-99.

Bagdonavicius A, Turbett GR, Buckleton JS and Walsh SJ. Western Australian sub-population data for the thirteen AMPF/STR[®] Profiler Plus[™] and COfiler[™] STR loci. *J Forensic Sci* 2002;47:1149-53.

Batty KT, **Ilett KF**, Powell SM, Martin J, Davis TM. Relative bioavailability of artesunate and dihydroartemisinin: investigations in the isolated perfused rat liver and in healthy Caucasian volunteers. *Am J Trop Med Hyg* 2002;66:130-6.

Begg EJ, Duffull SB, **Hackett LP, Ilett KF**. Studying drugs in human milk: time to unify the approach. *J Hum Lact* 2002;18:323-32.

Beilby JP, Hunt CC, Palmer LJ, **Chapman CM, Burley JP**, McQuillan BM, Thompson PL, Hung J. Apolipoprotein E gene polymorphisms are associated with carotid plaque formation but not with intima-media wall thickening: results from the Perth Carotid Ultrasound Disease Assessment Study (CUDAS). *Stroke* 2003;34:869-74.

Bremner M, Gibbs N, **Linden MD, Erber WN**, Weightman W. Antithrombin III levels during cardiac surgery and their relationship to haemoglobin concentration. [abstract] *Anaesth Intensive Care* 2002;30:245.

Brooke CJ, **Riley TV**, Hampson DJ. Evaluation of selective media for the isolation of *Brachyspira aalborgi* from human faeces. *J Med Microbiol* 2003;52:509-513.

Broom AK, Lindsay MD, Harrington SA, **Smith DW**. Investigation of the southern limits of Murray Valley encephalitis activity in Western Australia during the 2000 wet season. *Vector Borne Zoonotic Dis* 2002;2:87-95.

Broome AK, Smith DW, Hall RA, MacKenzie JS, Johansen CA. *Arbovirus Infections*. In: Cook G, Zumla A, editors. *Manson's Tropical Diseases*. 21st ed. London: Saunders; 2003. p. 725.

Cairns SM, Taylor JM, Gould PR, **Spagnolo DV**. Comparative evaluation of PCR-based methods for the assessment of T cell clonality in the diagnosis of T cell lymphoma. *Pathology* 2002;34:320-5.

Cala LA, Parker K, Emelyanova I, Hicks N, Linggard R, **Robbins P**, Aitkiouzel Y, Michalak K, Mastaglia FL. CAD of cranial CT scans. [abstract] *J Neuroradiol* 2002;29:IS20.

Carson CF, Mee BJ, **Riley TV**. Mechanism of action of *Melaleuca alternifolia* (tea tree) oil on *Staphylococcus aureus* determined by time-kill, lysis, leakage and salt tolerance assays and electron microscopy. *Antimicrob Agents Chemother* 2002;46:1914-20.

Carson CF, **Riley TV**. Non-antibiotic therapies for infectious diseases. *Commun Dis Intell* 2003;27 Suppl: S143-6.

Chapman CM, Beilby JP, Thompson PL, Hung J. Interleukin-6 and high sensitive C-reactive protein as predictors of subclinical carotid atherosclerosis. [abstract] *J Am Coll Cardiol* 2002;39(9 Suppl B):152B

Chapman CM, Hung J, Thompson PL, **Beilby JP**. A polymorphism in the IL-6 gene promoter (G-174C) is associated with subclinical carotid atherosclerosis in a community population. [abstract] *J Am Coll Cardiol* 2002;39(9 Suppl B):139B

Ching SY, Prins AW, Beilby JP. Stability of ascorbic acid in serum and plasma prior to analysis. *Ann Clin Biochem* 2002;39:518-20.

Cunningham LM, **Chapman C**, Dunstan R, Bell MC, Joske DJL. Polymorphisms in the interleukin 10 gene promoter are associated with susceptibility to aggressive non-Hodgkin's lymphoma. *Leuk Lymphoma* 2003;44:251-5.

Cussons AJ, **Bhagat CI**, **Fletcher SJ**, Walsh JP. Brown-Sequard revisited: a lesson from history on the placebo effect of androgen treatment. *Med J Aust* 2002;177:678-9.

Davis TM, Binh TQ, **Ilett KF**, Batty KT, Phoung HL, **Chiswell GM**, Phuong VD, Agus C. Penetration of dihydroartemisinin into cerebrospinal fluid after administration of intravenous artesunate in severe falciparum malaria. *Antimicrob Agents Chemother* 2003;47:368-70.

Erber WN. Massive blood transfusion in the elective surgical setting. *Transfus Apheresis Sci* 2002;27:83-92.

Fidalgo SG, Longbottom CJ, **Riley TV**. Susceptibility of *Erysipelothrix rhusiopathiae* to antimicrobial and home disinfectants. *Pathology* 2002;34:462-65.

Fox CJ, Cullen DJ, Knuiman MW, Cumpston GN, Divitini ML, **Rossi E**, Gochee PA, Powell LW, Olynyk JK. Effects of body iron stores and haemochromatosis genotypes on coronary heart disease outcomes in the Busselton health study. *J Cardiovasc Risk* 2002;9:287-93.

Garrow SC, **Smith DW**, **Harnett GB**. The diagnosis of *Chlamydia*, *Gonorrhoea* and *Trichomonas* infections by self obtained low vaginal swabs, in remote Northern Australian clinical practice. *Sex Transm Infect* 2002;78:278-81.

Golledge CL. Fighting meningococcal disease [videocassette]. Cremorne(NSW): Baxter Healthcare Australia; 2003.

Golledge CL. Surviving meningococcal disease [videocassette]. Sydney(NSW): Media One Pty Ltd; 2003.

Grey D, **Connolly M**, **Erber WN**. Comparison of low ionic diluents for use with the DiaMed antiglobulin gel test. *Transfus Med* 2002;12:63-9.

Grey D. Comparison of low ionic diluents for use with the DiaMed antiglobulin gel test. [letter] *Transfus Med* 2002;12:330.

Gutteridge DH, Holzherr ML, Retallack RW, Price RI, Will RK, Dhaliwal SS, Faulkner DL, Stewart GO, Stuckey BG, Prince RL, Criddle RA, Drury PJ, Tran L, **Bhagat CI**, **Kent GN**, Jamrozik K. A randomized trial comparing hormone replacement therapy (HRT) and HRT plus calcitriol in the treatment of postmenopausal osteoporosis with vertebral fractures: benefit of the combination on total body and hip density. *Calcif Tissue Int* 2003;Apr 14:[epub ahead of print]

Gutteridge DH, Retallack RW, Ward LC, Price RI, Stewart GO, Stuckey BG, Prince RL, **Kent GN**, **Bhagat CI**, Thompson RI, Nicholson GC. Bone density changes in Paget's disease 2 years after IV pamidronate: profound, sustained increases in pagetic bone with severity-related loss in forearm nonpagetic cortical bone. *Bone* 2003;32:56-61.

Hackett LP, **Dusci LJ**, **Ilett KF**, **Chiswell GM**. Optimizing the hydrolysis of codeine and morphine glucuronides in urine. *Ther Drug Monit* 2002;24:652-7.

Hale TW, Kristensen JH, **Hackett LP**, Kohan R, **Ilett KF**. Transfer of metformin into human milk. *Diabetologia* 2002;45:1509-14.

Hammer KA, Carson CF, **Riley TV**. Antifungal activity of tea tree oil – Activity against yeasts, dermatophytes and other filamentous fungi. Rural Industries Research and Development Corporation Publication No. 03/020, 2003.

Hammer KA, Carson CF, **Riley TV**. *In vitro* activity of *Melaleuca alternifolia* (tea tree) oil against dermatophytes and other filamentous fungi. *J Antimicrob Chemother* 2002;50:195-9.

Hammer KA, Dry L, **Johnson M**, Michalak EM, Carson CF, **Riley TV**. Antimicrobial activity of tea tree oil against oral bacteria. Rural Industries Research and Development Corporation Publication No. 03/019, 2003.

Harvey JM, Sterrett GF, Frost FA. Atypical ductal hyperplasia and atypia of uncertain significance in core biopsies from mammographically detected lesions: correlation with excision diagnosis. *Pathology* 2002;34:410-6.

Huang WH, Yan Y, **De Boer B**, Bishop GA, House AK. A short course of cyclosporine immunosuppression inhibits rejection but not tolerance of rat liver allografts. *Transplantation* 2003;75:368-74.

Hung J, **Beilby JP**, Knuiaman MW, Divitini M. Folate and vitamin B-12 and risk of fatal cardiovascular disease: cohort study from Busselton, Western Australia. *BMJ* 2003;326:131.

Inglis TJJ. Microbiology and Infection. 2nd ed. London: Churchill Livingstone; 2002.

Inglis TJ, O'Reilly L, Foster N, Clair A, Sampson J. Comparison of rapid, automated ribotyping and DNA macrorestriction analysis of *Burkholderia pseudomallei*. *J Clin Microbiol* 2002;40:3198-203.

Inglis TJ, Robertson T, Woods DE, Dutton N, Chang B. Flagellum-mediated adhesion by *Burkholderia pseudomallei* precedes invasion of *Acanthamoeba astronyxis*. *Infect Immun* 2003;71:2280-2.

Isbister GK, **Hackett LP.** Nefazadone poisoning: toxicokinetics and toxicodynamics using continuous data collection. *J Toxicol Clin Toxicol* 2003;41:167-73.

Joyce DA, Dusci LJ, Hackett LP, Ilett KF. Does your drug and alcohol policy work? *Aust Mining* 2002;94:34.

Joyce DA. Drug and alcohol surveillance: how do you know it is working? Available from: URL: <http://miningaustralia.com.au/articles/18/0c010b18.asp>

Karunajeewa HA, Kemiki A, Alpers MP, Lorry K, Batty KT, **Ilett KF**, Davis TM. Safety and therapeutic efficacy of artesunate suppositories for treatment of malaria in children in Papua New Guinea. *Pediatr Infect Dis J* 2003;22:251-6.

Lam CF, **Caterina P, Filion P**, van Heerden PV, **Ilett KF.** The ratio of polymorphonuclear leucocytes (PMN) to non-PMN cells— a novel method of assessing acute lung inflammation. *Exp Toxicol Pathol* 2002;54:187-91.

Lam CF, van Heerden PV, **Ilett KF, Caterina P, Filion P.** Two aerosolized nitric oxide adducts as selective pulmonary vasodilators for acute pulmonary hypertension. *Chest* 2003;123:869-74.

Lam CF, van Heerden PV, Svirid S, Roberts BL, **Ilett KF.** The effects of inhalation of a novel nitric oxide donor, DETA/NO, in a patient with severe hypoxaemia due to the acute respiratory distress syndrome. *Anaesth Intensive Care* 2002;30:472-6.

Lee EH, Wylie EJ, Bourke AG, **de Boer B.** Invasive ductal carcinoma arising in a breast hamartoma: two case reports and a review of the literature. *Clin Radiol* 2003;58:80-86.

Lindsay A, Holthouse D, **Robbins P**, Knuckey N. Spinal leptomeningeal metastases following glioblastoma multiforme treated with radiotherapy. *J Clin Neurosci* 2002;9:725-8.

MacKenzie JS, **Smith DW**, Hall RA. West Nile virus: Is there a message for Australia? *Med J Aust* 2003;178:5-6.

MacQuillan GC, **de Boer WB**, Platten MA, McCaul KA, Reed WD, Jeffrey GP, Allan JE. Intrahepatic MxA and PKR protein expression in chronic hepatitis C virus infection. *J Med Virol* 2002;68:197-205.

Morris RG, **Ilett KF**, Tett SE, Ray JE, Fullinaw RO, Cooke R, Cook S. Cyclosporin monitoring in Australasia: 2002 update of consensus guidelines. *Ther Drug Monit* 2002;24:677-88.

Myers GS, Morris LM, O'Keefe M, Jensen C, **Downs AM, Erber WN**, Forrest SM, Barlow JW. Microarray fabrication; the importance of library curation. *Today's Life Science* 2002;Sept/Oct:46-8.

Oka A, Hayashi H, Tomizawa M, Okamoto K, Suyun L, **Hui J, Kulski JK, Beilby J**, Tamiya G, Inoko H. Localization of a non-melanoma skin cancer susceptibility region within the major histocompatibility complex by association analysis using microsatellite markers. *Tissue Antigens* 2003;61:203-10.

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CURRENT RESEARCH GRANTS

Abraham LJ, Spagnolo DV

Regulation of CD30 expression in Hodgkin's and non-Hodgkin's lymphoma.
Cancer Foundation of Western Australia (\$49,931)

Beilby JP, Chapman CML, Thompson PL, Palmer L

Gene polymorphisms and environmental interactions on plasma HDL-C levels in the Busselton Health Study.
National Heart Foundation Research Grants in Aid (\$99,610)

Chapman CML

Postdoctoral fellowship.
HeartSearch WA (\$300,000)

Dennis M (Supervisors: **Chapman CML, Beilby JP, Harvey J**)

The role of sex hormone receptors in the development of atherosclerosis.
PathCentre Postgraduate Research Scholarship (\$18,009)

Erber WN, Grey D, Thomas S

Clinical Best Practice in Transfusion.
Health Department of Western Australia (\$253,000)

Goh Y-W, Spagnolo D, Platten M, Sterrett GF, Segal A, Iacopetta B

Immunohistochemical and molecular screening for c-kit mutation in gastrointestinal stromal tumours (gists) and correlation with prognosis.
Pathcentre Research Grant (\$4,500)

Hung J, Chapman CML, Beilby JP, Thompson PL

Inflammation, genes and atherosclerosis.
National Health Medical Research Council (\$185,000)

Ilett KF, Kristensen JH, Dusci LJ, Roberts M

Dexamphetamine and breastfeeding.
Pharmaceutical Council of Western Australia (\$9,778)

Inglis TJJ, Currie BJ, Norton R

An investigation into the role of potable water as a source of melioidosis in northern Australia.
National Health & Medical Research Council (\$360,000)

Inglis TJJ, Howard K, Levy A

Occupational health risk of melioidosis in the mining industry.
Minerals & Energy Research Institute of WA (\$40,300)

Joyce DA, Steer JH

Rac-ROS-NF- κ B Pathways in Survival and Growth of Fibroblasts and Macrophages in Chronic Inflammatory Synovial Disease.
Sir Charles Gairdner Hospital Research Foundation (\$10,000)

Lehmann D, Riley TV, Leach AJ

Otitis media in Indigenous and non-Indigenous children: microbiological and immunological risk factors.
National Health & Medical Research Council of Australia 2002-4 (\$548,500)

Linden MD, Schneider M, Baker S, Erber WN

The effect of heparin bonded circuitry on anticoagulation during cardiopulmonary bypass.
PathCentre Medical and Scientific Research Advisory Committee Small Research Grant (\$2,740)

McQuillan BM, Hung J, Chapman CML

Transcriptional profile of human vascular tissues in patients with atherosclerosis.
Raine Foundation Priming Grants (\$50,000)

Murray K, Downs AM

Cytokine profiles and gene expression studies in juvenile idiopathic arthritis.
Seeding Grant Princess Margaret Hospital Research Fund (\$10,000)

O'Reilly J, Downs AM, Sturm M, Erber WN, Herrmann R

Gene expression of malignant plasma cells in multiple myeloma with monosomy 13q or 13q deletion as a marker of poor prognosis.
Royal Perth Hospital Medical Research Foundation (\$35,000)

Rangan GK, Joyce DA, Steer JH

Regulation of tubular epithelial cell proliferation and cyclin D1 by NF- κ B/Rel in proteinuric chronic renal diseases.
Fremantle Hospital Medical Research Foundation (\$10,000)

Riley TV

Medical research infrastructure grant.
Department of Health Western Australia, 2003 (\$54,500)

Riley TV, Carson CF

Assessing the efficacy of tea tree oil hand or body wash as a topical antiseptic.
Rural Industries Research & Development Corporation 2002-4 (\$138,765)

Riley TV, Carson CF

Creating a database of tea tree oil related publications.
Rural Industries Research & Development Corporation 2003 (\$25,000)

Robins F, Downs AM, Prior J, Erber WN, Cull G

Establishment of a method to measure the alpha globin:beta globin RNA expression ratio in thalassemia.
PathCentre Research Grant (\$2,500)

Sinclair M, Day D, Dallow B, Walker R, Inglis TJJ

Drinking water and melioidosis project.
Water Quality Collaborative Research Centre (\$60,000)

Williams V, Musk AW, Shilkin KB, De Klerk NH, Whitaker D

Population patterns of exposure to asbestos and future risks.
SCGH Research Fund (\$10,000)

RESEARCH PROJECTS

Anatomical Pathology

Characterisation of collagen-producing cells in human peritoneal adhesions.

Caterina P, Mutsaers SE

The aim of this study is to characterise cell types within human peritoneal adhesions and identify cells likely to be synthesising collagen, the scaffold for adhesions formation.

A time-course study of the morphological changes of apoptosis in fibroblasts from healthy human lung and from human lung affected by cryptogenic fibrosing alveolitis (CFA).

Moodley Y, Caterina P

The aim of this study is to identify at the ultrastructural level, the morphological changes of apoptosis, over a time course, in human healthy lung fibroblasts and with CFA lung fibroblasts.

Clinicopathological, immunohistochemical and ultrastructural study of perineurioma.

Rankine A, Spagnolo DV

Perineurioma is a rare, benign soft tissue tumour which may mimic a large number of other more common tumours, some of which are malignant. Misdiagnosis as a malignant tumour may lead to inappropriately aggressive treatment. This study aims to review comprehensively the clinicopathological features of a number of these tumours, and to establish reproducible diagnostic criteria to enable its distinction from other tumours with which it may be confused.

Gastrointestinal stromal tumours (GIST): a clinicopathological and molecular study of 66 cases.

Koay MHE, Goh Y-W, Iacopetta B, Segal A, Sterrett GF, Spagnolo DV

Gastrointestinal stromal tumours are uncommon mesenchymal tumours of the gastrointestinal tract, which until recently were often misdiagnosed as smooth muscle neoplasms. Their accurate identification is critical as most harbour mutations in the *c-KIT* gene resulting in inappropriate tyrosine kinase activation thought to have oncogenic effects, which may now be blocked with a novel tyrosine kinase inhibitor. Predicting their clinical behaviour is difficult and criteria delineating benign from malignant cases are variable. The aim of this project is to define the clinicopathological and molecular features of a large number of GIST, and to identify any morphological or molecular characteristics predictive of clinical behaviour.

Clinical Biochemistry

Gene polymorphisms and environmental interactions on plasma High Density Lipoprotein C (HDL-C) levels in the Busselton Health Study.

Beasley L, Chapman CML, Beilby JP, Thompson PL, Palmer L

Low levels of HDL cholesterol are associated with an increased incidence of cardiovascular disease. This project aims to identify common genetic variations between individuals in genes involved in HDL metabolism. Once identified these variations will be studied in the Busselton Health population for an association with the more prevalent variance in HDL levels. Part of this project will form Lyndsey Beasley's honours project in the Department of Pathology and Surgery, The University of Western Australia (UWA).

Inflammation, genes and atherosclerosis.

Chapman CML, Jennens M, Arscott G, Beilby JP, Thompson PL, Hung J

Evidence suggests that chronic inflammation is closely involved in the process of atherosclerosis and its clinical complications. This study aims to determine if sensitive serum markers of inflammation and gene-environment interactions that affect inflammation will predict the extent and progression of carotid atherosclerosis in a community population and in patients with premature coronary heart disease.

Transcriptional profile of human vascular tissues in patients with atherosclerosis.

Chapman CML, McQuillan BM, Beilby JP, Hung J

This project will use microarray technology to establish the differential gene expression between normal and atherosclerotic tissue. Identification of novel genes important in the progression of atherosclerosis will be further studied in the above projects.

The role of sex hormones receptors in the development of atherosclerosis.

Dennis M, Chapman CML, Beilby JP

Little is known about the expression and action of sex hormone receptors in the development of atherosclerosis. This project, which forms Ms M Dennis' PhD project, will study the *in vivo* expression of

androgen, estrogen and progesterone receptors in the vasculature. Once this is known the action of these hormone receptors on genes important in endothelial and smooth muscle cell growth will be investigated. Ms D Starac and Assoc Prof J Harvey will provide expertise in pathology.

The investigation of *in vitro* and *in vivo* antioxidant status by a novel method.

Ching S, Ghisalberti E, Trengove R, **Beilby JP**, Hall J

Development of a novel method and use of this method and other markers to determine the effect of antioxidants in health and diseases.

Clinical Pharmacology & Toxicology

Use of the nicotine patch for smoking cessation in breastfeeding women.

Kristensen JH, **Ilett KF**, Roberts M, **Hackett LP**, Hale TW

Approximately 11% of new mothers continue to smoke whilst breastfeeding. This exposes the breastfed infant to nicotine, its metabolite cotinine and carcinogens from cigarette smoke. In this study we are assisting breastfeeding smokers to quit by use of the nicotine patch. The benefits are reduced exposure to nicotine and its metabolite and no exposure to the toxins in cigarette smoke. The study was funded by GlaxoSmithKline and involves an international collaboration with Dr TW Hale from the Texas Tech University School of Medicine.

Pharmacokinetics and pharmacodynamics of intraperitoneal ropivacaine alone and in combination with pethidine as an intra-operative treatment for pain.

Paech M, Oh TE, **Ilett KF**, **Hackett LP**

This collaboration which is drawing samples from both Royal Perth Hospital and King Edward Memorial Hospital builds on laboratory assay expertise developed during previous projects. Both drugs are administered intraperitoneally during abdominal surgery, and it is hoped that this novel route of administration will result in optimal peri-operative pain control.

Stability of omeprazole sodium and pantoprazole sodium when dissolved in 0.9% w/v saline or 5% w/v glucose for intravenous infusion.

Carpenter J, **Dusci LJ**, **McNulty MA**, **Ilett KF**

This project investigated the pharmaceutical stability of the anti-ulcer drugs omeprazole and pantoprazole when prepared in either normal saline or 5% dextrose for intravenous infusion. The results indicated that normal saline was the preferred diluent and that both drugs were stable for up to 24 hours. The outcome is that infusions will be able to be maintained for 12 hours longer than was previously possible and this change in practice will result in cost savings to the Sir Charles Gairdner Hospital pharmacy and nursing budgets.

The use of saliva for therapeutic drug monitoring in methadone maintenance.

Wilkinson C, Dyer KR, **Ilett KF**, **Dusci LJ**, **O'Halloran S**

This project is investigating the use of saliva as a matrix for testing for compliance with methadone therapy. Both rapid immunoassay strip tests, and high performance liquid chromatographic methods are being tested and compared. It is a joint collaboration between NextStep (Drug and Alcohol Office of the Western Australian Government), PathCentre and the University of Western Australia and seeks to extend our expertise in drug testing to the novel matrix of saliva.

Saliva, a novel matrix for identifying cannabis and methamphetamine use among dependent patients.

Wilkinson C, Dyer KR, **Ilett KF**, **Dusci LJ**, **O'Halloran S**

This project is using new rapid immunoassay strip tests to identify drug use. It is a joint collaboration between NextStep (Drug and Alcohol Office of the Western Australian Government), PathCentre and the University of Western Australia. The project will also develop GC-MS methods for confirmation of these drugs. The results will be important for the development of future routine tests that may be offered by PathCentre Clinical Pharmacology and Toxicology.

Drink spiking in Perth, Western Australia.

Quigley P, Guest S, **Dusci LJ**, **Ilett KF**, **O'Halloran S**

Drink spiking is a significant problem for the police in Western Australia. Utilising expertise and resources from Sir Charles Gairdner Hospital, The University of Western Australia, The Police Department of Western Australia and PathCentre, the project is examining the incidence of drink spiking in Perth. The laboratory is assisting by identifying ketamine, benzodiazepines, gamma-hydroxy butyrate and alcohol in specimens taken from alleged drink spike victims.

Stability of bupivacaine, morphine and hydromorphone in implanted intrathecal drug delivery devices.

Goucke CR, **Dusci LJ**, Van Leeuwen S, Fairclough D, **Ilett KF**

The aim of this study is to determine the pharmaceutical stability of bupivacaine, morphine and hydromorphone when co-formulated in infusates for use in implanted intrathecal drug delivery devices. Data collected to date show that all three drugs have excellent pharmaceutical stability over a mean of 28 days at body temperature. The results are important for optimal management of drug therapy in outpatients attending the Sir Charles Gairdner Hospital Pain Clinic.

The safety and efficacy of the novel inhaled nitric oxide donor, diethylenetriamine nitric oxide (DETA/NO), as a selective pulmonary vasodilator.

Lam CF, **Filion P**, **Caterina P**, Van Heerden PV, **Ilett KF**

This study is a PhD project (CFL) investigating the use of DETA/NO as a selective pulmonary vasodilator. Aspects of the basic pharmacology, animal and human toxicology and human therapeutic application of the compound have been investigated.

Haematology

Identification of novel prognostic markers for Chronic Lymphocytic Leukemia (CLL).

Cull G, **Downs AM**, **Davies J**

Well characterised prognostic markers for chronic lymphocytic leukemia (CLL) measured using established methods including flow cytometry and fluorescence *in situ* hybridisation (FISH) will be compared with potential novel prognostic markers identified by newly developed DNA microarray technology.

Cytokine profiles and microarray gene expression in juvenile idiopathic arthritis.

Downs AM, Murray K

A study of plasma and synovial fluid cytokine levels and cytokine gene expression in children with juvenile idiopathic arthritis of varying degrees of severity.

Characterisation of an osteoclast cell model by microarray.

Downs AM, Xu J

Microarray analysis of gene expression changes during differentiation of the RAW mouse monocytic cell line to osteoclast-like cells, which are used in *in vitro* studies of bone metabolism.

Microarray analysis of chromosome 13q deletion in multiple myeloma.

O'Reilly J, **Downs AM**, Strurm MJ, **Erber WN**, Herrmann RP

A comparison of gene expression patterns in malignant plasma cells from multiple myeloma patients with and without the chromosome 13q deletion which is defined as a marker of poor prognosis in this patient cohort.

Microarray analysis of lymphoma subtypes.

Spagnolo DV, **Downs AM**

Microarray analysis of lymphoma tissues will identify differences in gene expression between lymphoma subtypes with possible relevance to disease progression.

DNA microarrays for the detection and characterisation of influenza.

Smith D, **Broom A**, Hampson A, Barr I, **Downs AM**

A novel microarray method will be developed for rapid subtyping of influenza strains.

Effect of aprotinin and factor V Leiden on haemostasis in cardiac surgical patients.

Linden MD, Schneider M, Baker S, **Erber WN**

Uses *in vitro* and *in vivo* studies and a novel *ex vivo* model of cardiopulmonary bypass to evaluate the effect of the pharmacological blood conservation agent, aprotinin, and the genetic risk factor for thrombosis, factor V Leiden, on haemostatic risk for coronary graft occlusion in cardiac surgical patients.

Effect of heparin bonded circuits on haemostasis.

Linden MD, Schneider M, Baker S, **Erber WN**

This study uses a novel *ex vivo* model to evaluate the effect of heparin bonded cardiopulmonary bypass circuits and a reduced systemic dose of heparin on peri-operative coagulation and platelet activation.

Antithrombin and heparin resistance.

Linden MD, Schneider M, Baker S, **Erber WN**

This study investigates acquired antithrombin deficiency as the mechanism of heparin resistance during cardiopulmonary bypass in patients who receive pre-operative intravenous heparin therapy for unstable angina.

Antithrombin and acute normovolaemic haemodilution.

Linden MD, Gibbs NM, Bremmer M, Schneider M, Weightman W, **Erber WN**

This study evaluates the effect of acute normovolaemic haemodilution and cardiopulmonary bypass on intra-operative antithrombin concentrations.

Coagulation testing in the presence of high dose heparin.

Linden MD, Michalopoulos N, **Erber WN**

This study evaluates use of the ion exchange resin tri-ethylaminoethyl cellulose (TEAEC) for the removal of high dose heparin from a clinical blood sample and the effect of TEAEC on coagulation parameters.

Mechanisms of post-operative haemorrhage in cardiac surgical patients.

Linden MD, Schneider M, Gibbs NM, **Erber WN**

This study investigates whether residual heparin, heparin rebound, or excess protamine sulphate contribute to post-operative bleeding in cardiac surgical patients.

Immunology

Research study for EC20036/076 genetic factors affecting susceptibility and clinical manifestations of systemic lupus erythematosus (SLE).

Martinez P, **Hollingsworth PN**

SLE is associated with inflammation, which involves a series of proteins that make up what is known as the "complement pathway". One of the components of this pathway is known as "C4" and deficiency of this protein has been associated with an increased risk of developing SLE and more serious complications. In addition, blood levels of this protein are often used as a guide to the degree of activity of SLE.

CR2 polymorphism in rheumatoid arthritis.

Abraham L, Ulgiati D, **Hollingsworth PN**

The importance of CR2 in the generation of a normal B cell immune response and its expression during a critical stage in B cell development may be an important linkage to autoimmune disease. Therefore, as CR2 is activated during an important point in B cell development, and decreased expression of CR2 has been implicated in autoimmune disease, understanding of the transcriptional regulation and silencing of this gene may provide further insight into the pathogenesis of autoimmunity.

Microbiology & Infectious Diseases

DIAGNOSTIC VIROLOGY AND SEROLOGY / MOLECULAR DIAGNOSTICS AND DEVELOPMENT

Arbovirus research.

Smith DW, Shellam G, Lindsay M, **Broom A**

A variety of studies are underway in collaboration with the Arbovirus Surveillance and Research Group of the Department of Microbiology of the University of Western Australia. These include Flavivirus and Alphavirus epidemiology, mosquito ecology, pathogenesis of Flavivirus infections and improved diagnostic methods.

Harnett GB, Smith DW, Fegredo D

Improved methods for influenza detection and typing, and detection of parainfluenza viruses are being evaluated across the 1998 winter, including conventional cultures, rapid tests and nucleic acid amplification.

Harnett GB, Smith, DW, Riley TV, Lehmann D

Study on the role of respiratory viruses in the pathogenesis of acute and chronic otitis media.

Harnett GB, Fegredo D, Smith DW

The detection and epidemiology of metapneumoviruses in WA.

Sexually transmitted diseases.

Brestovac B, Harnett GB, Smith DW, Frost FA

Detection and typing of human papilloma viruses and their relationship to cervical carcinoma.

Meningococcal infection.

Speers D, Harnett GB

Use of sequencing for typing of meningococci.

DIAGNOSTIC BACTERIOLOGY AND MYCOLOGY

Tea tree oil.

Riley TV, Carson CF, Hammer KA, Smith DW

Several projects currently funded by the Rural Industries Research & Development Corporation continue to operate in the Division. The two clinical trials have been concluded. The first of these assessed the antiviral activity of the oil as a potential treatment for cold sores and the promising results have just been submitted for publication. The second trial of treatment of bacterial vaginosis with a tea tree oil vaginal gel was in collaboration with a centre in the UK. In addition, work on the *in vitro* antimicrobial activity of tea tree oil is progressing on two fronts. The activity of tea tree oil against oral pathogens was assessed and the results of this study are about to be published. A new project to investigate the efficacy of tea tree oil as a topical antiseptic has allowed Dr Syndie Messenger to join the group and she is using a skin model as part of this work.

***Brachyspira (Serpulina) pilosicola* as a cause of human disease.**

Hampson D, **Riley TV**, Brooke J

This is a collaborative study that continues with Professor David Hampson at the School of Veterinary and Biomedical Sciences at Murdoch University. *B.pilosicola* is a gut organism that appears to cause diarrhoea and septicaemia in compromised individuals. Improved methods for detection are being developed and these will be used to determine the importance of the organism. Several recent publications have arisen out of this work.

***Clostridium difficile*.**

Riley TV, Thomas C, Goh S, Golledge CL

C.difficile has been an organism of interest to the Division for many years. Methods for the laboratory diagnosis of *C.difficile* disease continue to be compared and assessed. Several new PCR based detection methods are being evaluated and hopefully these will improve the speed of diagnosis. A study on the epidemiology of *C.difficile* diarrhoea and showed a reduction in disease following a reduction in cephalosporin use, a significant finding in terms of reducing the financial burden of *C.difficile*. Studies on alternative therapies for *C.difficile* are ongoing. Finally, we have isolated and characterised several bacteriophages active against *C.difficile*. These may be useful for therapy.

Investigation into the microbiology of occupationally related infections in lobster fishermen.

Riley TV, Longbottom CJ, Wang Q, Mee B, Chang B

We have shown that these infections are probably caused by *Erysipelothrix rhusiopathiae*, an organism that is found on the exterior of lobsters. The susceptibility of *E.rhusiopathiae* to a range of antibiotics and disinfectants was determined and these results have been published recently. Investigations have continued on the virulence factors of *E.rhusiopathiae* with a view towards vaccine development.

ELECTION TO OFFICE IN PROFESSIONAL ORGANISATIONS

Dr WB De Boer

State Councillor, Australian Society of Cytology (WA branch)
Participant, Bone Tumour Registry of WA
Co-organiser, WA Anatomical Pathologists Study Group

Dr JP Beilby

Chairman, Board of Examiners, Australasian Association of Clinical Biochemists
Associate Member, Committee on Cardiac Markers in Clinical Chemistry, International Federation of Clinical Chemistry (IFCC)
Co-Chair, International Federation of Clinical Chemistry (IFCC) Working Group: Standardization of total plasma homocysteine measurements
Chairman, Chemical Pathology Course Organising Committee 2002

Dr E Rossi

Chair, International Federation of Clinical Chemistry (IFCC) Working Group: Standardization of total plasma homocysteine measurements.

Mr LJ Dusci

Member, AS/NZS 4308:2001 committee

Dr WN Erber

Committee Member, International Society of Haematology, Committee on Nomenclature and Terminology
Committee Member, Australian Red Cross Blood Service (ARCBS) (WA) Blood Products User Group
Sub-Committee member, Haematology Morphology, RCPA Quality Assurance Programme
Member, Rhodes Scholarship Selection Committee (Western Australia)
Examiner for Fellowship, (Haematology) Part 1 and II Examinations of the Royal College of Pathologists of Australasia
Member, Royal College of Pathologists of Australasia, Western Australian State Committee

Dr CL Golledge

Examiner, Part I Microbiology, Fellowship Examinations, Royal College of Pathologists of Australasia
Member, Drug Committee, Sir Charles Gairdner Hospital
Member, Postgraduate Medical Education Committee, Sir Charles Gairdner Hospital
Member, WA State Antibiotic Guidelines Committee
Member, Creutzfeldt-Jakob Disease (CJD) Reference Group of Australia
Chair, Anti-Infectives Advisory Board, Bayer Australia
Member, Advisory Board, College of Health: School of Medicine, Notre Dame University

Assoc Prof J Harvey

Councillor, Australian Council on Smoking and Health
Member, State Committee, Royal College of Pathologists of Australasia
Examiner, Anatomical Pathology, Fellowship Examinations, Royal College of Pathologists of Australia
Chair, Western Australian Coronial Ethics Committee
Executive Committee, Australian Society for Breast Disease
Member, Board of Basic Surgical Training, Pathology Subcommittee, Royal Australasian College of Surgeons
Member, Animal Resource Authority

Dr PN Hollingsworth

Chairman, Inter Hospital Liaison Committee for Clinical Immunology
Member, Rhodes Scholarship Selection Committee for WA
President, Association of Rhode Scholars in Western Australia
Western Australian Representation, Australian Society for Clinical Immunology and Allergy

Assoc Prof KF Ilett

Member, Psychotropic Drugs Subcommittee, Western Australian Drugs and Therapeutics Committee of the WA Government
Member, Poisons Advisory Committee, Government of Western Australia
Assesor, National Association of Testing Authorities

Dr TJJ Inglis

Board Member, Perth Bone and Tissue Bank
Chair, Sir Charles Gairdner Hospital Infection Control Committee
Member, WA State Food Advisory Committee
Member, WA State Health Care Related Infection Strategic Advisory Committee
Member, State Infection Control Advisory Committee
WA Member, National Public Health Laboratory Network
Councillor, Executive Committee of the Australasian College of Tropical Medicine

Assoc Prof DA Joyce

Deputy-Member, Poisons Advisory Committee, Government of Western Australia

Mr R Mogyorosy

Member, Committee of Standards Australia – Food (F/T 4)
Member, Committee of Standards Australia – Water Microbiology (F/T 20)
Member, Results Sub-Committee, Advisory Committee for the Purity of Water
Member, WA Food Monitoring Program Steering Group

Mr L Mulgrave

Member, Australian Group on Antimicrobial Resistance Surveillance

Mr S Munyard

Member, WA Food Monitoring Program Steering Group

Prof TV Riley

Member, State Infection Control Advisory Committee
Member, WA Branch Committee, Australian Society for Microbiology
Convenor, Australian Society for Microbiology International Visitor Programme
Member, Alexander Project Steering Committee
Member, Australian Infection Control Association Expert Working Group on Nosocomial Infections
Member, Australian Society for Microbiology National Scientific Advisory Committee
Member of the International Advisory Committee for the 4th International Meeting on the Genetics and Pathogenesis of Clostridia
Member of the European Society for Clinical Microbiology and Infectious Diseases *Clostridium difficile* Study Group

Dr P Robbins

State Representative, Australasian Division, International Academy of Pathology
Honorary Secretary and Pathologist Panel Member, WA Bone Tumour Registry
Clinical Senior Lecturer, The University of Western Australia
Examiner, Royal College of Pathologists of Australasia
Committee Member, National HER2 Testing Advisory Board

Dr KB Shilkin

Member, Advisory Board, Centre for Forensic Science, The University of Western Australia
Member, Familial Bowel Cancer Committee, Familial Cancer Registry of Genetic Services of Western Australia
Member, Medical Training Review Panel (Department of Health and Ageing) representative of the Royal College of Pathologists of Australasia
Member, Western Australian Cancer Registry – Mesothelioma Registry Committee
State Representative, National Pathology Accreditation Advisory Council

Dr DW Smith

Co-Director, Arbovirus Research and Surveillance Group, University of Western Australia
Member, State Arbovirus Control Committee
Member, National Arbovirus & Malaria Advisory Committee
Member, State Infection Control Advisory Committee
Member, WA State Immunisation Committee
Member, State Human Epidemic Emergency Committee
Member, Vaccine Impact Support Network
Member, Winter Strategy Group of The Health Department of Western Australia
Chairperson, Public Health Laboratory Network of Australasia (PHLN)

PHLN Representative, National Public Health Partnership
PHLN Representative, Australian Influenza Pandemic Planning Committee
PHLN Representative, Therapeutic Goods Administration Working Group on Regulation of *in vitro* Diagnostic Devices
Member, Advisory Group for the Serology Quality Assurance Program, NATA/RCPA
Member, Organising Committee Communicable Diseases Control Conference 2003
Member, Nucleic Acid Amplification Quality Assurance Program Committee
Member, Asia Pacific Advisory Committee
Member, Security Advisory Group, Australian Animal Health Laboratories
Member, Communicable Diseases Network of Australia
Member, National Pathology Accreditation Advisory Committee
Member, State Health Emergency Management Committee
Member, State/Metropolitan SARS Response Group
Member, Technical Advisory Group for the Donovanosis Eradication Committee

Dr DV Spagnolo

Immediate Past President, International Academy of Pathology (Australasian Division)
Member, Diagnosis Working Party, Australian Cancer Network Group to Draft "Guidelines for the Diagnosis and Management of Non-Hodgkin's Lymphoma"
Member, Advisory Committee, WA Research Tissue Network
Examiner, Royal College of Pathologists of Australasia (Anatomical Pathology)

Dr DJ Speers

Examiner for Australian Medical Council
Examiner, Part I Microbiology, Fellowship Examinations, Royal College of Pathologists of Australasia
Member, Drug and Pharmacy Committee, Joondalup Health Campus
Member, Infection Control Committee, Joondalup Health Campus
Member, Drug & Therapeutics Committee, Sir Charles Gairdner Hospital

Mrs P Swan

Secretary WA Branch Australian Society of Cytology

Dr V Williams

Chief, Board of Examiners, Australian Society of Cytology
Examiner, Fellowship (Cytology) Australian Institute of Medical Scientists

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Diagnostic Cytology 331, Curtin

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DNA – Applications in Forensic Science, UWA
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