GEN-PROBE
Introduce
The Next Generation of Amplification...
TMA

- **Powerful** - Amplifies rRNA target a billion-fold in 2 hours or less, resulting in optimal sensitivity.

- **Accurate** - The specificity of Gen-Probe's patented probe technology produces highly accurate results. The assay format minimises the potential for carry-over contamination.

- **Simple and Convenient** - Amplification takes place in one tube at one temperature without the need for thermocyclers and requires minimal special training.

- **Cost Effective** - Same day results can lead to earlier diagnosis and more cost-effective patient management.

Tests now available for:
* Mycobacterium Tuberculosis Direct (MTD), in 4-5 hours.
* Chlamydia trachomatis, from male & female urine and genital swabs.

DISTRIBUTED BY:
Met-Bio Enterprises Ltd
PO Box 11-016
46 Haiwyn Drive
Christchurch

Phone (03) 349 4950
Fax (03) 349 4424
Toll Free Ph: 0800 733 599
Toll Free Fax: 0800 101 441
Editorial
Medical laboratory science education. Then, now and in the future. Jim Clark.................................87

Leading Article
Towards 2001: Teaching or learning? Chris Lovell-Smith, Peter Schwartz.................................88-89

Discussion Document
Fellowship and specialist examination. A review, and a proposal.....................................................103

Education Reports
News from Massey University – Master of Medical Laboratory Science.................................90-91
Otago University post-graduate programs in Medical Laboratory Science.................................91-92

Regular Features
Advertisers in this Issue .................................................92
Annual Staffing Survey...................................................104-105
Book Reviews.................................................................95
Council's Column...........................................................102
Institute Business...........................................................101
Instructions to Authors...................................................86
New Products and Services...........................................129
Special Interest Groups ..................................................119-126
The Pacific Way..............................................................97-99
NEW ZEALAND JOURNAL OF MEDICAL LABORATORY SCIENCE

Editor:
Rob Siebers. Wellington School of Medicine

Editorial Board:
Jan Nelson. Department of Molecular Medicine, University of Auckland.
Shirley Gainsford. Valley Diagnostic Laboratory, Lower Hutt.
Les Milligan. Otago Regional Blood Transfusion, Dunedin.
Keith Harrison. Editor, Australian Journal of Medical Science.
Trevor Forster. Editor, Australian Journal of Medical Science.
Grant Goodman. Haematology Department, Taranaki Base Hospital.
Michael McCarthy. Diagnostic Laboratory, Auckland.

Statistical Adviser:
Gordon Purdy. Wellington School of Medicine.

The New Zealand Journal of Medical Laboratory Science is published quarterly (March, May, August and November) on behalf of the New Zealand Institute of Medical Laboratory Science (Inc) by Institute Press Ltd, Auckland.

The Journal is indexed in the Cumulative Index to Nursing and Allied Health Literature (CINAHL).

Subscriptions:
Subscriptions to the Journal for non-members requiring delivery in New Zealand is NZ$23.00 for 1 year surface mail paid. Subscriptions to the Journal for non-members requiring delivery overseas is NZ$29.60 for 1 year surface mail paid. All subscriptions except for single issues are due in February. Single issues are NZ$12.00 Surface mail paid. Members of the NZJMLS should send their enquiries and address changes directly to the Executive Officer of the NZJMLS, PO Box 3270, Christchurch.

Advancing:
Advertisement bookings and enquiries should be addressed to the Advertising Manager: Trish Reilly, 48 Towai St., St Heliers, Auckland 5. Phone: (09) 575 5057.

Editorial:
For all editorial matter, including submitted papers, press releases and books for review should be sent to the Editor: Rob Siebers, Department of Medicine, Wellington School of Medicine, PO Box 7343 Wellington South. Phone: (04) 385 5999 (Ext: 6838). Fax: (04) 389 5725, E-mail: rob@wnmeds.ac.nz.

Contributors and advertisers are responsible for the scientific content and views. The opinions expressed in the Journal are not necessarily those of the Editor or Council of the NZJMLS.

Information for Contributors:
The Journal publishes original, review, leading & technical articles, short communications, case reports and letters in all disciplines of Medical Laboratory Science as well as related areas of interest to Medical Laboratory Scientists (eg) epidemiology, public & community health, education, ethics, computer applications, management, etc. All papers published will be in the form known as the "Vancouver Style" or Uniform Requirements for Manuscripts Submitted to Biomedical Journals. Concise details are listed below while full details may be found in the NZ J Med Lab Science 1991; 45 (4): 108-11 or from the Editor.

Papers submitted to the Journal are refereed and acceptance is at the discretion of the Editor. Papers with substantive statistical analysis and data will be reviewed for appropriateness by the Statistical Adviser. No undertaking is given that any article will be published in a particular issue of the Journal. The copy deadline for each issue is the first of the month prior to the month of publication.

Manuscripts:
Submitted papers (in duplicate) should be typewritten, in double spacing throughout on one side of A4 paper. Generally each component of the manuscript should begin on a new page in the following sequence.

* Title of paper. authors (including first name and qualifications), and institution(s) where the work was carried out. Address for the corresponding author should also be given.

* Abstract and keywords. Abstracts should be structured and contain concise and precise information regarding the study's Objective(s), Method(s), Result(s) and Conclusion(s). List up to 4 keywords using Index Medicus medical subject headings.

* Text. in the order of Introduction, Materials and Methods, Results, Discussion and Conclusion.

* References should follow the style adopted by the US National Library of Medicine as used in Index Medicus. Refer to papers in recent issues of the Journal for guidance (or see NZ J Med Lab Science 1991; 45 (4): 108-11). Authors are responsible for accuracy of all references.

* Illustrations must be provided with a suitable legend typed on a separate sheet. Graphs should be 2-3 times larger than they would appear in the journal and contain a minimum of lettering. Legends for these should also be typed on a separate sheet.

Photographs should be original sharp, glossy black & white prints. Authors wishing to submit colour photographs must contact the Editor in the first instance.

* Tables should be typed on a separate page complete with a title at the top and footnotes at the bottom. The tables should be numbered as they appear in the text and must not contain vertical lines.

* Acknowledgements should be made to people and/or organisations who have made substantial contributions to the study. Authors are responsible for obtaining consent from those acknowledged. Financial contributions towards the study from granting bodies or commercial organisations must be stated.

Two copies of the manuscript are to be addressed to the Editor NZ J Med Lab Science, C/o- Department of Medicine, Wellington School of Medicine, PO Box 7343, Wellington South, together with a letter from the corresponding author stating that the work is original, is not under consideration for publication elsewhere, and in the case of multi-authorship that all authors have contributed directly to the planning, execution, analysis or to the writing of the paper.
EDITORIAL

Medical laboratory science education. Then, now and in the future.

Jim Clark. Programme Leader
Bachelor of Medical Laboratory Science, Auckland Institute of Technology.

50 years is a memorable milestone for both individuals and professional bodies. While for both, reflection on the past might be considered an indulgence, the time spent is valued if it can help in giving lessons for the future. There may well be plenty of stories of past times at the 50th Jubilee Celebrations of the NZIMLS, when people will tell and retell of famous and infamous laboratory escapades. This is a perfectly acceptable human trait, but one which quickly divides the listeners into two groups:

"When I started in the lab, we calculated the MCHC with a slide rule"
"When I was first rostered in the wash-up room we had to scrape agar out of glass petri dishes, wash and rinse them, restack and sterilise."
"... after ward collects, I had to wash out the glass syringes, and sharpen my needles!"

Much younger members of the profession have by now a firmly fixed smile on their face, and are thinking, "if he mentions once more that he remembers when the milkman used a horse and cart to make his deliveries, I'll leave." And so the stories are told to willing listeners, or are tolerated by less willing ones.

Professional bodies who are of course the sum of the individual members, have a more serious view of reminiscing. It is not just appropriate but essential that a history is recorded for posterity. However, unlike many individuals, a professional body does not have a finite time to accomplish things. At fifty years of age would a professional body worry about whether its retirement plan is adequate?

The professional body should always be looking to the future; to be doing some crystal ball gazing; to be listening to the needs of all members; to offer wise counsel; to advise. It must be vigorous and full of energy, as if it were forever young but with the accumulated wisdom of a dozen 70-year-olds with not a hint of Alzheimer’s. Unlike the Bard’s advice that wisdom of a dozen 70-year-olds with not a hint of Alzheimer’s. Unlike the Bard’s advice that "crabbed age and youth cannot live together", organisations such as our professional body will need to have mixed membership to keep it alive and well.

So here we are at this milestone, and at many events at the conference at August, there will be people who wish to remember how things were better in their day. One area that has changed a great deal is the education of medical laboratory scientists. Like many other professions, medical laboratory science has had to accept the education of laboratory workers rested on the goodwill of those who offered to teach the apprentice. There are those who recall sitting in the sun on the laboratory doorstep after work listening to Doug Whillans or Hugh Olive.

At the end of the restructuring of the registrable qualification, all New Zealanders can feel pleased that three tertiary institutions offer a degree in Medical Laboratory Science. Each institution may have a different emphasis, but the profession is well served by having a clear and easily understood qualification. We may be pleased that this has been achieved, but it must be asked, how the workplace likes it? It may well be too soon to know, but it is important that we keep re-examining what is happening. Where are we heading with new qualifications? If we now have a degree as the minimum requirement to gain registration for our highly skilled and diverse area of science, we need to check on the avenues that open in terms of post-graduate diplomas, Masters etc. It is also time to consider the entry point for other members of our work force. The Council of the Institute have been investigating the setting up of an advisory group to look at putting standards and qualifications relating to medical laboratory science on the National Qualifications Framework. The area to be investigated is the entry to the Framework of the Qualified Technical Assistant qualification. The issues that surround this need to be fully debated. Who is to pay for and what portions are questions that immediately spring to mind. How they will link with degree qualifications should be of concern to present Qualified Technical Assistants who understand only too well what it means to have a cul de sac qualification that does not easily link to gaining a qualification that will permit full registration.

Countries with similar types of educational institutions to New Zealand have a variety of schemes, and are also looking at new qualifications. For example, Leeds College of Health are investigating a new structure for medical laboratory assistants and Queensland University of Technology has an Associate Degree in Applied Science (Medical Laboratory Techniques). All members of the profession have to have input into new structures that are suggested. They must link easily with higher qualifications and follow the philosophy of "seamless education", with multiple entry and exit points. To meet the extra demands that are being made in the presently changing world, all possibilities that management and the professional body see as relevant to accomplish the varied and complex tasks set before us, must be considered. It is important that all members of the institute have input from their various perspectives to help decide the direction of new changes. Let us hope that our exciting world of science continues to hold our interest, and that we see as many improvements in the way that we perform our work, and are trained to do so, as we have seen in the last 50 years.
Change is the only constant that many of us can recognise in the current New Zealand health environment, and teaching medical laboratory science is under the same sort of pressures as other activities within the health and education systems. Nationally, we now have three degree courses, replacing a long-standing apprenticeship system, which relied on a lot of voluntary teaching by laboratory staff to make it work. The new courses are taught, by and large, by full-time professional teachers, although often with considerable back-up from scientists working in diagnostic laboratories. Is this an improvement, or merely a change? In a technologically advanced discipline, with a short half-life for current knowledge, how do we best equip students for their future working lives?

Learning is a complex process, with many facets that can be explored. Currently, there is talk within universities about the desirability of fostering a "deep" approach to learning. While this sounds a rather fuzzy concept, there is general agreement that students using this approach will focus on overall messages from learning and other life experiences, relate and integrate the ideas they receive, and thus construct their own meaning. It requires students to be intrinsically motivated, and to have the ability to integrate new ideas with old. It therefore includes such skills as analysis, summarising, problem-solving, researching, and working collaboratively, as well as fact-acquisition. It may be contrasted with "surface" learning, which occurs when students are extrinsically motivated (i.e. concerned about their grades, rather than acquiring and understanding knowledge), and involves the rote learning of lists of facts or the memorisation of theories without analysis.

Intuitively, we can probably all agree that medical laboratory scientists should engage in deep learning during their studies towards a degree, and employers have indicated that some of the attributes they seek in graduates are consistent with such an approach. However, there are some factors which inhibit the students moving towards deep learning. These include heavy workloads, which tend to push students towards learning the bare essentials for passing grade, without a commitment to achieving understanding, and inappropriate assessment techniques.

With these thoughts in mind we have attempted to develop courses which promote deep learning. Although there are still areas we want to work on further, our Clinical Biochemistry course for the University of Otago BMLSc is an example that we believe goes some way towards meeting the theoretical objectives of a modern degree course. It is probably best described as "case-based", self-directed learning. Clinical and laboratory situations, many drawn from real life, are used to raise the students' awareness, act as an early focus for discussion, and provide the framework for learning about a defined set of topics. Written objectives, suggested readings or summaries, and self-assessment quizzes help to further define the parameters of study. The learning takes place in two distinct settings: solo (usually), in free time, as a student works through the relevant written materials, and in small groups, facilitated by the teacher. Each topic is structured so that the more practical aspects are covered earlier, tying in with a laboratory practical session, and the pathophysiology and clinically relevant material follow later.

The teacher, in this context, loses the lecturing role and has to develop other skills. A lot of collaborative work is required initially to set the boundaries for study and provide clear, achievable objectives. Facilitating the group process becomes of major importance, particularly with students who are not used to working together. In addition, the methods of assessment became critically important, since they provide a powerful cue to a student's choice of learning methods. There is no point in fostering understanding and analytical skills if traditional 3-hour written examinations with questions essentially saying "Write all you know about . . . " are still used. We favour multiple assessments, including short theory tests, again based on problems, a practical test, and a subjective assessment of each student's contribution to the group work at each tutorial.

Our approach is generally well regarded by our students, who enjoy the practical orientation of the problems, the informal atmosphere of the tutorials, and the close working relationships that they develop with each other and with their tutor. Some students find the intensity of the course hard to handle, and occasionally personality clashes within groups need to be sorted out. The students' final grades are comparable with those obtained by medical students taking similar problem-based assessments (Table 1), and in 1994, for example, over half the class recorded their top mark for the year in our paper.

There is, however, a tension appearing between what we as educationalists might view as desirable, and what employers want. In a recent survey, employers ranked the demonstration of high level competencies in laboratory practice very highly (mean score 4.50 out of 5) and did not perceive our graduates as demonstrating these (mean score 2.75 out of 5). We see this as one of the challenges for the future. It is our belief that our students are well-equipped to deal with new ideas and changes and have abilities to research options and make choices, and in this context we would expect them to be able to become dexterous in the use of analytical techniques with minimum intervention. However, we will have to revisit what we believe is ideal and try to match it against what is achievable and desired by others.

Conclusion
In providing teaching to students in the BMLSc Course, we have attempted to utilise principles and practices which will foster deep learning approaches by the students. We believe that these can be supported so that suitable learning habits are formed for life. At the
same time, we recognise deficiencies in what is being achieved in practical work and we must try to correct these without using a training process which develops a lot of superficial skills that rapidly become outdated.

Table 1:
Final Examination Results (Unadjusted) for Third Year Courses in Clinical Biochemistry for BMLSc and Medical Students.

<table>
<thead>
<tr>
<th>Year</th>
<th>BMLSc n</th>
<th>Mean %</th>
<th>SD</th>
<th>Medical n</th>
<th>Mean %</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>26</td>
<td>71.2</td>
<td>(8.7)</td>
<td>172</td>
<td>69.1</td>
<td>(9.5)</td>
</tr>
<tr>
<td>1994</td>
<td>30</td>
<td>71.1</td>
<td>(9.7)</td>
<td>188</td>
<td>71.8</td>
<td>(10.7)</td>
</tr>
<tr>
<td>1995</td>
<td>28</td>
<td>75.4</td>
<td>(9.9)</td>
<td>191</td>
<td>66.7</td>
<td>(10.6)</td>
</tr>
</tbody>
</table>

References

Winner of the Med Bio Journal Award for the May 1996 issue was Ailsa Bunker from the Haematology Department, Middlemore Hospital for her article “Cyclic neutropenia – A case history”. NZ J Med Lab Science 1996; 50 (2): 54-56.
News from Massey University.
Master of Medical Laboratory Science (MMLS).

Plans to offer the MMLS in 1997 have been deferred for at least a year owing to the concerns about the funding for this programme. The MMLS had been proposed as an extramural programme. This method of delivery will allow students to continue to work in laboratories, thus reducing the considerable expense involved in full time University study. Unfortunately the Ministry of Education funding for courses in extramural mode is about one quarter of that for internal Masters programmes. This has forced a rethink of the financial viability of this programme. Massey University is currently conducting some market research to establish the numbers likely to take an extramural MMLS, if it were offered, and the amount students would be prepared to pay for it.

Anyone interested in the MMLS who has not already been contacted is invited to write to/phone or fax:

Dr Mary Nulsen
Director of Medical Laboratory Science
Department of Microbiology and Genetics
Massey University
PALMERSTON NORTH
Phone 06 350 4021
Fax 06 350 5687

The MMLS Proposal
(Note: This has not yet been approved by CUAP and may have to be altered.)

The MMLS will be available to:

i) all BMLS/BMLSc graduates who have worked for at least one year in Medical Laboratory Science or a related area;

ii) those who have completed the Diploma in Medical Laboratory Science (DipMLS); and

iii) those who have qualified for any other degree of a New Zealand University, and qualify to be a registered Medical Laboratory Scientist.

The MMLS will consist of papers worth 100 points and a Research Project (62.589) worth 50 points. The papers must include 62.581 DNA Technology (25 points) and 62.582 Research Methods and Communication (25 points) and two of 26.413 Health Systems Management (25 points), 55.402 Advanced Health Care Law (25 points), and 43.527 Quality Management for Medical Laboratories (25 points).

The research project will involve the investigation of some aspect of one of Biochemistry, Microbiology, Virology, Haematology, Transfusion Science, Immunology, Histological Technique or Cytology. The research project may be undertaken in a medical laboratory. The completed project will be presented in thesis form.

If the MMLS were to be done full time, it would take three semesters to complete i.e. approximately 18 months. However we do not plan to offer all the papers every year. It will take about five years to complete part time.

Quality Management for Medical Laboratories: Your Views
Mr Malcolm Rees wishes to canvass the views of medical scientists on the course content of this paper (43.527) which will be part of the proposed MMLS.

'Quality Management for Medical Laboratories' will be organised and run from the Department of Production Technology. The staff involved have expertise in the theory and general principles of quality management but lack an intimate knowledge of medical laboratories. Mr Rees has been asked to provide a link between laboratory personnel and the Production Technology staff. He would welcome comments on the subject matter being considered.

The current proposal is that the paper will be divided into seven sections as follows:

1. Principles of Quality Management
   - Definition of quality
   - The spiral of quality
   - The history of quality management movement (Juran, Deming, QCC, TQC)
   - Quality relates to products and services
   - Cost of quality
   - Quality relates to health service

2. The Management Systems Approach
   - ISO 9000
   - Malcolm Baldridge National Quality Award
   - New Zealand Quality Award
   - Developing a Quality Management System

3. Measurement and Management of Service Quality
   - The service versus product
   - What is service quality
   - Service excellence (Total Quality Service)
   - Service Quality Measurement (SERVQUAL), Customer Satisfaction, Successful Customer Survey)
   - Quality audits
   - Benchmarking
   - Service quality related to health care

4. Total Quality and Continuous Improvement
   - Total quality philosophies
   - Continuous Improvement (Kaizen, the concept)
   - Quality improvement tools (QC tools)
   - The foundation of improvement (Commitment, culture)
   - Approaches to improvement (Problem solving, QCC, QIT)
   - TQM and human factors (Leadership, training, empowerment, supplier involvement, etc)
   - Why TQM fails

5. Principles of Good Laboratory Practice
   - Introduction to Good Laboratory Practice (GLP)
   - GLP legislation
   - The Testing Laboratory Registration Act, 1972, No 36
   - ISO 25
   - QA in good clinical research practice

6. Validity and Verification of Measurement: Calibration of Instrumentation and Related Issues

7. Laboratory Safety and Related Issues

Conclusion
It is intended that this paper will be a critical appraisal of the issues mentioned with the students researching the current literature, and articles provided, in an effort to develop their own opinions. It is likely that some sections will be dealt with only briefly while others will be covered in depth.

Your comments on the content are welcome and should be...
This course is offered as one year confirmation of funding by the Postgraduate Diploma in Medical Laboratory staff (The Master of Medical Laboratory Science (MMLSc) Postgraduate Programmes in Medical Laboratory Science: 1996, the Division of Medical Laboratory Technology at Massey University and is recognised for purposes of registration by the Medical Laboratory Technologists Board, as an equivalent qualification acceptable to the Board of Studies for Medical Laboratory Science and approved by the Ministry of Health. The course will be undertaken in any one of the four schools of the Faculty of Medicine (Christchurch, Dunedin or Wellington Schools of Medicine, or the Dunedin-based School of Medical Sciences) under the supervision of academic staff.

Eligibility

Postgraduate Diploma in Medical Laboratory Science

Every candidate shall

(i) have been admitted to the degree of Bachelor of Medical Laboratory Science, or have been admitted to an alternative degree or diploma which is acceptable to the Board of Studies for Medical Laboratory Science and is recognised for purposes of registration by the Medical Laboratory Technologists Board, or be admitted ad eundem statum as entitled to proceed to the diploma.

(ii) for non-degree candidates, work experience will be taken into consideration in approving candidacy.

Master of Medical Laboratory Science

Every candidate shall

(i) have been admitted to the Postgraduate Diploma in Medical Laboratory Science, or an equivalent qualification acceptable to the Board of Studies for Medical Laboratory Science, or have been admitted ad eundem statum as entitled to proceed to the degree.

Schedule of Papers

Postgraduate Diploma in Medical Laboratory Science

HASC 403 Research methods 10 points
MELS 501-509* one option of the following: 20 points
MELS 501 Clinical Biochemistry
MELS 502 Clinical Microbiology
MELS 503 Clinical Virology
MELS 504 Cyto genetics
MELS 505 Cytopathology
MELS 506 Haematology
MELS 507 Histopathology
MELS 508 Molecular Pathology
MELS 509 Transfusion Medicine
* Not all options may be available in any year
MELS 580 Research Project 10 points

Master of Medical Laboratory Science

Thesis 40 points

The University of Otago

The University of Otago was founded in 1869 and has grown steadily to its present roll of more than 15,000 students. There are four academic divisions of which the Division of Health Sciences is the largest, in terms of staff, research and resources. In 1996, it will comprise seven Schools, the four Schools of the Faculty of Medicine, (Dunedin, Christchurch and Wellington Schools of Medicine and the School of Medical Sciences) and the Schools of Dentistry, Pharmacy and Physiotherapy.

Medical Laboratory Science courses for undergraduate and postgraduate study are administered by the Division of Health Science through the Board of Studies for Medical Laboratory Science. Facilities are provided through the four Schools of the Faculty of Medicine.

The Academic Year

The year at Otago is divided into two semesters. The first semester begins at about 20 February and ends about 10 June, whereas the...
second semester runs from about 11 July until 14 October.

Facilities
Facilities for study towards the DipMLSc may be provided by any approved pathology laboratory, operated either by a Crown Health Enterprise, or privately owned, as the emphasis of the DipMLSc is vocationally oriented to enable candidates to further their professional development by pursuing advanced speciality study in a discipline of the medical laboratory sciences. The DipMLSc also serves as a prerequisite for the MMLSc, allowing selected medical laboratory scientists who do not hold a university degree as well as BMLSc graduates, to proceed to the masterate after completing the diploma. The Research Project (MELS 580) may also be undertaken in an academic department within the Faculty of Medicine of the University of Otago.

For the MMLSc, an approved programme of study and research will be undertaken in an academic department within the Faculty of Medicine of the University of Otago.

For Further Information
Postgraduate information is available from:

Medical Laboratory Science Office
C/- Department of Pathology
Dunedin School of Medicine
University of Otago
PO Box 913, Dunedin
New Zealand
Fax 64-3-479 7136
Phone 64-3-479 7151

Colin Watts Memorial Prize

In December 1995, Louise Stratford was awarded the Colin Watts Prize which is awarded to the best performed student in all papers taken in the 2nd, 3rd and 4th years of the BMLSc degree.

Louise is currently working in the Microbiology Laboratory at Hutt Valley Health and believes the BMLSc course thoroughly prepared her for employment in the laboratory environment.

James Le Grice Memorial Prize

I was grateful to receive this prize for my efforts in Biochemistry at the end of the four year BMLSc degree. It was one of the highlights of an action packed graduation in December 1995.

I had chosen Biochemistry along with Cytogenetics for my disciplines to focus on in the practical based fourth year of the course, after gaining an interest in both of these fields from the first three years.

I am now working in the Dunedin Hospital Cytomolecular Genetics Laboratory working towards my registration. At some stage in the future I hope to travel to the UK and possibly work in both Biochemistry and Cytogenetic laboratories over there.

Thank you to the family of James Le Grice for this generous prize. Jim's contribution to the Medical Laboratory Science degree is well remembered.

Stephanie Easthope

Advertisers In This Issue

Abbott Diagnostics..................................Inside Back cover
Barker Miller Graham Associates..........................112
Bayer Diagnostics...................................117
Behring Diagnostics................................100
Biolab Scientific......................................98
Biorad Laboratories....................................96
Boehringer Mannheim.................................Outside back cover
Corinth Medical........................................127
Coulter Electronics...................................93, 121 & 123
Elite Medical Services...............................126
Johnson and Johnson Medical........................94
Med Bio Enterprises.................................Inside front cover
Medica Pacifica......................................121 & 123
Murex Diagnostics..................................124
Queensland University of Technology................128
SCI ANZ Corporation................................131
World Courier........................................105
Day or night, no other blood gas system in the world demands less. Or delivers more.
The new IL1600™ Series blood gas/electrolytes system is ready to deliver accurate results on a moment’s notice... a level of readiness and availability no other analyser can match.
The lowest overall maintenance of any blood gas/electrolytes system of its kind.
New maintenance-free electrodes with pre-filled disposable caps.
IL’s exclusive continuous calibration ensures that your analyser is always ready...with answers you can trust.
Improved operator safety, thanks to IL’s new self-wiping probe and safer sample tip area.
Smaller size provides more usable space in your lab.
IL offer six upgradeable models, ranging from basic blood gas to blood gas, electrolytes and Glucose. You can also extend your diagnostic range by interfacing your IL1600™ Series analyser with an IL 682 CO-Oximeter™ system for a comprehensive profile of blood oxygenation.
To experience a new level of system readiness, see a demonstration of the new IL1600™ Series blood gas electrolytes system.
For more information on this revolutionary new system contact Coulter on Free call 0800 442 346 or Free fax on 0800 442 347.
Coulter Electronics (NZ) Ltd, PO Box 109518, Newmarket, Auckland.
A sign of intelligent life.

The world's only Immunodiagnostic System with a brain.... coming soon.

for more information on the VITROS ECX Immunodiagnostic System please call 0800 800 705

Johnson & Johnson
Clinical Diagnostics
Medical knowledge and technology like – "Old Man River – just keeps rolling along". In fact for some of us the latter seems to have advanced more like a jet-plane. This book is a testament to this.

When I graduated some 25 years ago the best diagnostic tests for myocardial infarction were an ECG and an LDH; for lupus erythematosus we used to put blood in a bottle with paper clips and shake for what seemed ages before sending to the laboratory for "LE cells"; infectious diseases did not include Hepatitis C, D and E etc. and no-one had heard of AIDS; and lastly, endocrinology was a clinical specialty depending very much on careful history taking and awaiting for tests such as the PBI (protein-bound iodine) or 17 ketosteroids. How laboratory testing has changed all that. Our tests are now more sophisticated and reliable, they not only confirm clinical impressions but they may even make a diagnosis for the clinician.

This book reviews the use of laboratory-based tests and their use in diagnosis. It is divided into four main parts: normal values, specific laboratory examinations, diseases of organ systems, and drugs and laboratory test values. Each chapter is extensive, with stress on the positive findings in each disease, relevant negative findings are also mentioned. In some sections algorithms are added, an example is the antigen-antibody findings in Hepatitis B. Some of these algorithms are daunting, but in general they are helpful. I dipped into areas which are familiar to me (a generalist and clinical pharmacologist) and found the information useful. The downside was the small print and the lack of photographs in the haematology section, it's always easier to have a picture of the abnormal cells either in blood or bone marrow than just reading about them. I also found that the index did not always contain words that I am used to using, for example hyponatraemia is found under sodium, and ESR is found under sedimentation.

Who is this book meant for? I would see it more as a desk reference for both practitioners and laboratory-based individuals. It is not a text to learn from, because it is presented as a wedge between clinical findings and treatment choices, neither of which are considered here. However, if one wants to find the relevant lab. test, this would be the book to go for. Maybe now I will be more successful with that game much beloved of physicians called chase the ESR!

Dr Carl Burgess
Wellington School of Medicine

Immunocytochemistry in Practice
Johnstone A & Thorpe R, Editors.

This greatly expanded, new style, 3rd edition will be welcomed by those familiar with this publication, and be a valuable asset to those who may be new to the science and practice of immunology. An "all you need to know" is probably the best way to describe this book's approach to the technical aspects and procedures involved with immunocytological practice from the basics of protein measurements, antibody production and purification, and antigen detection to the more complex techniques of gel electrophoresis, radiolabelling, and tissue studies to name a few.

Divided into 13 chapters, the text follows a very concise but easy to follow format with each section/technique commencing with a short informative introductory theoretical passage with appropriate supporting diagrams, a much appreciated highlighted materials and equipment requirement list which saves valuable time in sorting out reagents from screeds of text and literally gets you started, which leads to step by step methodology followed by informative notes which reflects the vast practical experience of the scientists who have contributed to the book and will provide invaluable assistance to solving technical problems and troubleshooting. The reader is clearly directed to associated issues by clear cross-section referencing throughout the text. A small number of colour plates support the immunocyto/histochemistry and flow cytometry.

The reference and index sections are preceded by a list of manufacturers and suppliers which although a useful inclusion, contains mostly British addressed which unfortunately omits phone, fax, or E-mail/Web addressed, which would be a very useful addition for overseas readers. Formulæ of commonly used buffers are also included.

As a user of the second edition I am impressed with the expansion and layout of this book which I would recommend as a bench book for any post graduate researcher, technician or scientist who is embarking on an immunological trail, and as a reference book for those persons already experienced or wishing to delve deeper into the many aspects of immunological technique. With regard to the medical laboratory this book is probably of limited value to those performing basic kit set immunological analysis, but is a must for diagnostic laboratories executing more complex techniques and in particular associated with research, and should be listed in all medical and appropriate scientific libraries.

Harold Neil
Canterbury Health Laboratories
THE COMPLETE QUALITY CONTROL SYSTEM

ALL THE INFORMATION YOU NEED.

With the introduction of UNITY, our revolutionary quality control program, Bio-Rad Laboratories offers the clinical laboratory a complete systems approach to quality assurance. Our quality control system consists of control products that act like patient specimens. UNITY, our QC data management program and comprehensive management reports, which provide the clinician with useful decision-making information. Ask your Bio-Rad representative to show you how you can join the quality revolution with the Bio-Rad Quality Control System.
In Service Training Course - Papua New Guinea

The following report was compiled by Gilbert Rose after spending ten weeks as the PPTC tutor on the In Service Training Courses in Basic Laboratory Techniques, September to December 1995.

"In collaboration with the Faculty of Health Sciences, University of Papua New Guinea and the Pacific Paramedical Training Centre an In-Service Training Course in Basic Laboratory Techniques was designed and two five week courses were conducted in Papua New Guinea between the 18th September and 1st December 1995. The courses were funded by the New Zealand Government Ministry of Foreign Affairs and Trade, through their official Development Assistance Bilateral Programme.

The first course was held at the Faculty of Health Sciences in the University of Papua New Guinea, Port Moresby; the second in the Medical Laboratory Assistants Training School at the Highlands Regional Health Support Unit in Goroka. Ten participants attended at each venue; many coming from very remote rural areas.

In rural areas the main laboratory work done in the health centres relates to Haematology and Microbiology, so the emphasis was on appropriate methods and techniques used in these disciplines and approved by the World Health Organisation and the Papua New Guinea Health Department.

Theoretical background to the basic techniques currently being used was covered to enable the laboratory worker to better understand the principle of each test as well as to give them some knowledge of the interpretation and validity of the final test results.

Laboratory Safety and Quality Assurance were also covered taking into account the conditions and facilities available in the various rural areas.

Approximately 80% of the population of Papua New Guinea live in the rural areas. The people in the rural areas do not receive their proportionate share of the health resources.

As a result, they remain at very high risk for many health problems that can be treated and eliminated.

The leading causes of mortality for all age groups are:
- pneumonia
- malaria
- meningitis
- tuberculosis
- intestinal infections, parasitic

- pulmonary/heart conditions
- anaemia
- sepsicaemia
- digestive system disorders
- Neontnaal sepsis is the main cause of death in the perinatal period. In children under the age of five years, the major causes of death are:
  - respiratory disorders
  - diarrhoea, malaria
  - vaccine preventable diseases
  - malnutrition
  - The majority of the above causes of mortality are communicable diseases in which the laboratory worker can help greatly in diagnosis, control of treatment and surveillance of these diseases.

Among the techniques covered in the course were examination of cerebrospinal fluid, white blood cell and differential counting, haemoglobin estimation, red blood cell morphology and basic interpretation of causes of anaemia.

As well as consolidating familiar techniques of urinalysis the concept and practice of quantitative urinary cell counting was introduced. Since meningitis is a common occurrence among young children the examination of cerebrospinal fluid by cell counting and Gram staining was fully revised.

The World Health Organisation (WHO) has recommended that the Sahli haemoglobin method which is used predominantly in rural areas should be phased out and replaced with a more accurate and reliable method.

To help this transition, BMS Haemoglobinometers were donated by the Central Region of the New Zealand Red Cross to fifteen participants. The five other participants were already using a more accurate method than the Sahli method. The WHO is also committed to providing a larger number of haemoglobinometers for use in other areas of the country and for training.

As typhoid is endemic, particularly in the Highlands, the slide agglutination test is used widely as a simple screening test for the detection of typhoid antibodies in possible typhoid cases and as an aid in differential diagnosis. Discussion of typhoid as a disease was a convenient way in which to introduce pathogenesis, transmission and immunity in infectious diseases.

To the present date there have been 434 laboratory workers trained through the Papua New Guinea training system, they are in the following categories:
- 30 medical Technologists (MT)
- 165 Medical Laboratory Technicians (MLT)
- 57 Medical Laboratory Assistants Part 2 (MLA 2)
- 182 Medical Laboratory Assistants Part 1 (MLA 1)

Previously designated Rural Laboratory Assistant (RLA)

At the end of 1995 the Papua New Guinea Government published their 1996-2000 Health Plan and included in this plan were proposals to establish two rural hospitals in each of the country's nineteen provinces, the recruitment and posting of Clinical Pathologists to Mt Hagen and Nonga Base Hospitals, and to develop Public Health Laboratory capacity at Goroka, Lae and Rabaul regional hospitals.

The government also intends to reclassify all the health facilities at six different levels:
1. National Referral Specialist Hospitals
2. Regional Referral Specialist Hospitals
3. General Specialist Hospitals
4. General Care Hospitals
5. Rural Hospitals
6. Health Centres

Sub Health Centres
Aid Posts

Each level has among other criteria specific mention of diagnostic services which would include a medical laboratory facility.

There will be a need to train more laboratory workers in all categories if the Papua New Guinea Government is to fulfil the future needs of the proposed Laboratory Services.

In Service Training Course - Faculty of Health Sciences

Taurama Campus of University of Papua New Guinea, Port Moresby
18 September to 20 October 1995

Participants
1. Mr Max Ako
2. Mr Timmeus Awaun
3. Mr Noah Banigoa
4. Mrs Pamela Gurrina
5. Mr John Makario

Location
Health Centre, Evangelical Health Services
Balimo, Western Province
Health Centre, Health Sub-Centre
Anglican Health Services
Alotau, Milne Bay Province
United Church
Health Centre
Goodenough Island, Milne Bay Province
St Barnabas
Hospital, Dogura,
Milne Bay Province
Tapini Health Centre
Gollala District, Central Province
Biolab Scientific Ltd represent world leaders and supply top quality Plasticware, Small Laboratory Equipment and Diagnostic Products.

Look out for our stand at the conference and enter the draw for a colour TV.

FOR FURTHER INFORMATION PLEASE CONTACT YOUR LOCAL BRANCH OF BIOLAB SCIENTIFIC:

Auckland: Private Bag 36900, Northcote, Auckland. Ph: (09) 418-3039 Fax: (09) 480-3430 Freephone: 0800 807 809 - National Toll Free
Palmerston North: 293 Tremaine Ave, Palmerston North. Ph: (06) 354-7142 Fax: (06) 354-2226 Freephone: 0800 733 822 - Lower North Island Only
Christchurch: PO.Box 1813, Christchurch Ph: (03) 366-3663 Fax: (03) 366-3647 Freephone: 0800 806 974 - South Island Only

Email:- orders@biolab.co.nz and info@biolab.co.nz
In-Service Training Course - MLA Training School

Highlands Regional Health Support Unit, Goroka, Eastern Highlands Province
30 October to 1 December 1995

Participants  Location
1. Mr John Nokue  Asaro District Health Centre, Goroka, Eastern Highlands Province
2. Mr Robin Peter  Kabwum Health Centre, Lae, Morobe Province
3. Mr Cyril Tapasia  Annaberg Health Centre, Madang, Madang Province
4. Mr Jeson Tipa  Kotna Health Centre, Goroka, Eastern Highlands Province
5. Mr Benjamin Yaga Upawe  Henganofi Health Centre, Goroka, Eastern Highlands Province
6. Mr Dominic Wansa  Raihu Health Centre, Aitape, Sandaun Province
7. Mr Febian Warenz  Tabibuga Health Centre, Mt Hagen, Western Highlands Province
8. Mrs Ludwina Yarkit  St Mary's Hospital, Vunapope, East New Britain Province
9. Mr Valentine Yemaiye  Waseniga Health Sub-Centre, Vanimo, Sandaun Province
10. Mr Tatt Young  Gabuin Hospital, Karkar Island, Madang Province

Left to right: Rosemary Munaga (Charge nurse PNG Red Cross, Port Moresby); Bowali Pelowa (Balimo, Western Prince); John Makario (Tapini, Central Prince); Pamela Guirina (Dogura, Milne Bay Province).

Goroka class at the end of the course.

Rosemary Munaga from the Central Region NZ Red Cross presenting the BMS Haemoglobinometers to the Port Moresby course students. Mike Ballinger, Head of Department, Medical Laboratory Science UPNG and Gilbert Rose, Tutor from PFTC in background.
BEHRING DIAGNOSTICS has an illustrious history in serving the scientific community dating from the late 19th century and serum therapy by Emil von Behring, founder of Behringwerke, Marburg, Germany, through to Behring Diagnostics current advances and Gold Standards in the diagnosis of Human diseases.

Come and see our stand (49) and see more of our interesting history and our exciting present and future in Medical Laboratory Science.

Behring Diagnostics New-Zealand
CPO Box 4079
Auckland 1015
Tel: 09 366 4784 Toll Free 0800 80 79 82
Fax: 09 379 8308
INSTITUTE BUSINESS

President
Dennis Reilly
Diagnostic Laboratory, Auckland

Vice President
Shirley Gainsford
Valley Diagnostic Laboratory, Lower Hutt

Secretary/Treasurer
Paul McLeod
Microbiology Dept., Nelson Hospital

Council
Leanne Mayhew, Chris Kendrick, Les Milligan,
Trevor Rollinson, Ann Paterson

Executive Officer
Fran van Til
P.O. Box 3270, Christchurch
Phone/Fax (03) 313-4761.

Please address all correspondence to the Executive Officer, including Examination and Membership enquiries.

Membership Report – February, 1996

<table>
<thead>
<tr>
<th>Membership</th>
<th>14.06.96</th>
<th>04.05.96</th>
<th>13.02.96</th>
<th>19.09.95</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>1033</td>
<td>1002</td>
<td>994</td>
<td>1006</td>
</tr>
<tr>
<td>Less resignations</td>
<td>12</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Less G.N.A.</td>
<td>4</td>
<td>8</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Less deletions</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Less deceased</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Less duplications</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Less G.N.A.</td>
<td>4</td>
<td>8</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Less deletions</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Less deceased</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Less duplications</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Plus applications</td>
<td>4</td>
<td>7</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>Plus reinstatements</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>1033</td>
<td>1002</td>
<td>994</td>
<td>1006</td>
</tr>
</tbody>
</table>

Composition

| Life Member (Fellow) | 11 | 12 | 12 | 12 |
| Life Member (Member) | 9  | 9  | 9  | 9  |
| Fellow              | 19 | 20 | 21 | 21 |
| Member              | 621| 621| 618| 621|
| Associate           | 267| 265| 266| 266|
| Non Practising      | 40 | 49 | 49 | 50 |
| Honorary            | 27 | 27 | 27 | 27 |
| Total               | 1033| 1002| 994| 1006|

New Members


Editor
Rob Siebers
Dept. of Medicine, Wellington School of Medicine, P.O. Box 7343 Wellington South. E-Mail: rob@wnmeds.ac.nz

Membership Fees and Enquiries
Membership fees for the year beginning April 1, 1996 are:
For Fellows – $98.40 GST inclusive
For Members – $98.40 GST inclusive
For Associates – $43.80 GST inclusive
For Non-practising members – $40.00 GST inclusive

All membership fees, change of address or particulars, applications for membership or changes in status should be sent to the Executive Officer at the address given above.

Members wishing to receive their publications by airmail should contact the Editor to make the necessary arrangement.

NEW ZEALAND
INSTITUTE OF MEDICAL LABORATORY SCIENCE
1996 CALENDAR

14 August Annual Report and Balance Sheet to be with the membership (14 days prior to AGM)
21 August Ballot papers and proxies to be with Executive Officer (7 days prior to AGM)
26-27 August Council Meeting – Auckland
28 August AGM – Auckland
27-30 August 50th Anniversary Annual Scientific Meeting – Auckland
6 November QTA examinations
14/15 November Council Meeting – Wellington
20/21 November Specialist Certificate examinations

N.Z Med Lab Scie 1996
101
Council’s Column

At the May Council meeting, concern was expressed that there has been a lack of communication from Council to Institute members. So to address this, it was decided that the Executive Officer should write a report informing the membership of Council activities and important issues. This report will be printed in each issue of the Journal.

Fellowship
A review of Fellowship and the Specialist Certificate examination is being undertaken. The objective of this review is to ensure that these examinations are an appropriate post graduate professional examination that meets the needs of the profession. A discussion document will be in the August Journal for the membership’s consideration and will be discussed at the August AGM.

Review of the Registration Board
All registrations boards, including the Medical Laboratory Technologists Board, are currently being reviewed. This process will occur over the next eighteen months and will require submissions from organisations such as the Institute.

The question of whether or not we remain as a registered health profession is the first question to be answered. If we do retain registration status, then the Act under which the MLTB will function will be radically different from the current statutes. The model Act being suggested is the new Medical Practitioners Act. Opinion on this Act is also being sought by the Ministry of Health.

New Zealand Qualifications Board
An update on where the NZIMLS stands with NZQA was circulated to membership with the election notice.

In summary, due to a number of uncertainties, mainly regarding the Universities degrees and the framework, and the laboratory employers commitment, Council has decided to wait for these issues to be addressed before proceeding further with an advisory group.

Laboratory Quality Standards
The NZIMLS has made a submission and many laboratory scientists were present at the meetings held throughout the country. The NZIMLS has asked to be involved in any further reviews of these standards.

MOLS
This pilot programme, the Maintenance of Laboratory Standards, was initiated by the Medical Laboratory Technologist Board. The purpose of this programme is to ensure that scientists are involved in a range of ongoing educational activities, so that scientists can continue to provide the highest quality service in their respective laboratories and maintain professional competence.

Although this programme belongs to the Medical Laboratory Technologists Board, the NZIMLS will do the day to day running of it. However, it is up to each individual to keep a record and relevant documentation of their continuation education activities. To ensure that you are doing this, the NZIMLS will carry out a check of a small percentage of registered scientists at the end of 1996.

IAMLT
The NZIMLS Council have nominated Dennis Reilly for a position on the IAMLT Council. Dennis attended the General Assembly of Delegates meeting in Oslo on 26 June 1996 and I am pleased to advise that Dennis topped the polls receiving the most votes for the five IAMLT Council members required. Dennis also did a presentation on our MOLS programme which is the subject of a considerable amount of interest from other countries.

Historical Publication
To acknowledge the 50 years of the NZIMLS, we are in the process of preparing a history of the Institute and Medical Laboratory Science in New Zealand. I am sure that you will appreciate that such a publication is very expensive to produce and our thanks and grateful appreciation must go to the many laboratories, companies and associated organisations who have been very generous in their offer of sponsorship towards the cost of the history publication.

I wish to acknowledge the tremendous amount of work that Anne Paterson and her team have put into this history publication. It has taken hours and hours of research, writing, collating and begging to get it near completion. Many, many thank yous and much appreciation goes to all involved.

SIG Convenors Meeting
Again, the Council will meet with the SIG Convenors at the 1996 Conference. This is a yearly meeting to discuss any relevant issues and also a time when Council can acknowledge the effort and time that the SIGs put into running various activities on behalf of the NZIMLS.

Conference
We look forward to seeing as many as possible at the 50th Anniversary Annual Scientific Meeting. The organising committee are doing a wonderful job and are providing an extensive and interesting scientific programme as well as allowing plenty of time for social interaction.

Gerard Verkaaik has kindly taken up the challenge to organise the 1997 Conference. Even though Blenheim is a lovely place, it does not have a suitable facility, so it is likely that the conference itself will be held in Wellington.

Housekeeping
Some of you may have spoken to Gini (Virginia Cairns) when you have rung the Institute’s office. Gini is not employed by the Institute, but employed by me to help run Executive Events/Secretarial.

However, as part of her duties as an assistant, she is becoming knowledgeable of the running of the Institute’s day to day affairs and may be able to assist you should I not be available at any particular time.

If there are issues/topics that members would like addressed in this column, we would be very happy to do so.

Fran van Til
Executive Officer
Discussion Document
Fellowship and Specialist Examination, A Review, and a Proposal for Change

You will be aware that all training of Medical Laboratory Scientists is now degree based and that the Universities involved have developed post graduate programmes including Masters degrees. To ensure that the profession continues to have a role in the education of Medical Laboratory Scientists Council has extensively reviewed its post graduate examinations ie; Specialist level and Fellowship. The prime objective is to have an appropriate post graduate professional examination that meets the needs of the profession. This document presents the outcome of this review for consideration by the membership. It is Council's intention that the proposal will be discussed at the forthcoming AGM in Auckland on the 29th August and if the membership approves, will introduce the new examination as soon as practicable.

Currently the Institute offers two post graduate qualifications: the Specialist examination and Fellowship.

Prior to 1988 the Specialist exam was conducted by the Medical Laboratory Technologist Board (MLTB) and was part of the Board's Diploma of Medical Laboratory Technology. However, in 1988 the MLTB announced a change in the registration requirements, from either two Certificate levels in different disciplines or one Certificate and Specialist level in the same discipline, to just one Certificate level. At the NZIMLS AGM in 1988, Council was directed by the membership to take over the Specialist Examination from the MLTB. Since 1990 the NZIMLS has conducted the examinations which consist of 2 x 3 hour theory papers. The number of candidates sitting the examination peaked in 1992 with 45 but has decreased steadily with only 13 applications this year.

The examination has been seen by many in the profession as a prerequisite for employment in larger, more specialised laboratories, or for those Medical Laboratory Scientists aspiring to charge positions. It is also recognised by employers, who frequently state in their advertisements for protective employers that having a specialist level is a requirement for the position.

Fellowship was introduced in 1968 as the highest academic membership category offered by the Institute. The standard set was equal to the highest medical laboratory technology qualifications available world wide.

Currently Fellowship can be gained by examination, the submission of a thesis, or by examination. Applicants for Fellowship must have held the membership category of Member of the Institute for 3 years.

The route by examination consists of the submission of a treatise of three to five thousand words which contributes 20% of the final marks. Once the treatise has been successful, candidates sit eight hours of theory examinations, for the remaining 80% of marks. A pass of 60% is required.

The second route is by the submission of a thesis of original work not exceeding twenty thousand words.

Exemption is granted in exceptional circumstances at the discretion of Council in recognition of an approved higher degree from a recognised university, other suitable qualifications and experience, publications or outstanding achievement.

Since its inception 4 members have gained Fellowship by examination, 10 by submission of a thesis and 6 through exemption by the submission of publications.

There are currently 35 Fellows of the Institute. Some of whom are founder Fellows who were eligible under the original regulations drawn up in 1968. The last Fellowship to be awarded was in 1992.

Council's Proposal
Council is of the opinion that the Institute should offer one post graduate qualification only and that it should be Fellowship. We propose that Fellowship could be gained in three ways.

These are:
1) by examination and submission of a treatise.
2) by submission of a thesis
3) by publications

ROUTE 1 will be divided into 2 parts.
Part 1 would comprise of written examinations in present Specialist level disciplines, similar in depth and knowledge to the current Specialist examination. The minimum time after registration (as a Medical Laboratory Scientist) candidates could sit this exam would be 2 years.
Part 2 would be a treatise of 3000-5000 words chosen by the candidate which directly relates to the part 1 examination. The treatise could be submitted one to five years after completing Part 1. Medical Laboratory Scientists who have a Specialist Certificate would be given the opportunity to gain Fellowship by route 1. They would be exempted from Part 1 but would have to submit a treatise. This opportunity would be available for 3 years after the introduction of the proposed changes.

ROUTE 2
There would be no change from the current regulations that require the submission of a thesis of original work not exceeding twenty thousand words.

ROUTE 3
A minimum of five peer reviewed articles published in international or discipline acknowledge scientific journals could be submitted together with a review of 3000-5000 words summarising the work done.

Major changes have occurred over the last five years in the education of Medical Laboratory Scientists from an apprenticeship style training to degree based training. Any post graduate examination offered by the profession must fit in with the aspirations and requirements of the new generation of Medical Laboratory Scientists. It is our belief that the proposed changes will fulfil those aspirations but also cater for current Medical Laboratory Scientists by providing an opportunity for them to upgrade their qualifications.
The Annual Staffing Survey figures for 1995 are not accurate due to a major CHE not making the figures available.

### Medical Laboratory Technologists

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Biochemistry</td>
<td>187.0</td>
<td>187.0</td>
<td>175.0</td>
<td>208.0</td>
<td>182.0</td>
<td>202.0</td>
<td>221.5</td>
<td>241.4</td>
<td>209.9</td>
</tr>
<tr>
<td>Microbiology</td>
<td>176.0</td>
<td>186.0</td>
<td>189.0</td>
<td>204.0</td>
<td>183.0</td>
<td>206.0</td>
<td>209.8</td>
<td>232.0</td>
<td>193.5</td>
</tr>
<tr>
<td>Haematology</td>
<td>168.0</td>
<td>176.0</td>
<td>174.0</td>
<td>180.0</td>
<td>163.0</td>
<td>167.0</td>
<td>184.6</td>
<td>205.9</td>
<td>168.9</td>
</tr>
<tr>
<td>Transfusion Science</td>
<td>97.0</td>
<td>102.0</td>
<td>96.0</td>
<td>105.0</td>
<td>101.0</td>
<td>120.0</td>
<td>126.7</td>
<td>132.9</td>
<td>113.4</td>
</tr>
<tr>
<td>Histology</td>
<td>24.0</td>
<td>28.0</td>
<td>26.0</td>
<td>29.0</td>
<td>34.0</td>
<td>35.0</td>
<td>32.9</td>
<td>35.5</td>
<td>32.3</td>
</tr>
<tr>
<td>Cytology</td>
<td>5.7</td>
<td>7.8</td>
<td>9.5</td>
<td>22.0</td>
<td>26.6</td>
<td>23.5</td>
<td>23.0</td>
<td>28.7</td>
<td>27.7</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>5.8</td>
<td>9.0</td>
<td>7.0</td>
<td>8.4</td>
<td>9.2</td>
<td>12.2</td>
<td>9.4</td>
<td>8.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Immunology</td>
<td>22.0</td>
<td>21.0</td>
<td>30.0</td>
<td>31.0</td>
<td>34.0</td>
<td>38.0</td>
<td>47.4</td>
<td>48.6</td>
<td>43.4</td>
</tr>
<tr>
<td>Cytogenetics</td>
<td>7.5</td>
<td>8.0</td>
<td>6.4</td>
<td>5.8</td>
<td>12.6</td>
<td>14.7</td>
<td>12.4</td>
<td>15.7</td>
<td>12.0</td>
</tr>
<tr>
<td>Virology</td>
<td>4.5</td>
<td>6.5</td>
<td>10.0</td>
<td>12.0</td>
<td>13.5</td>
<td>13.6</td>
<td>8.8</td>
<td>10.2</td>
<td>7.5</td>
</tr>
<tr>
<td>Administration (full time)</td>
<td>34.0</td>
<td>33.0</td>
<td>33.0</td>
<td>30.0</td>
<td>29.0</td>
<td>29.0</td>
<td>36.2</td>
<td>37.9</td>
<td>26.1</td>
</tr>
<tr>
<td>On rotation</td>
<td>41.0</td>
<td>44.0</td>
<td>40.0</td>
<td>31.0</td>
<td>31.0</td>
<td>34.0</td>
<td>40.6</td>
<td>28.4</td>
<td>18.0</td>
</tr>
<tr>
<td>Other</td>
<td>3.0</td>
<td>11.0</td>
<td>7.8</td>
<td>13.0</td>
<td>8.6</td>
<td>9.7</td>
<td>6.4</td>
<td>9.9</td>
<td>15.3</td>
</tr>
<tr>
<td>Total</td>
<td>775.5</td>
<td>819.3</td>
<td>803.7</td>
<td>879.2</td>
<td>826.5</td>
<td>914.7</td>
<td>959.7</td>
<td>1036.1</td>
<td>887.0</td>
</tr>
</tbody>
</table>

### Medical Laboratory Assistants

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Biochemistry</td>
<td>169.0</td>
<td>174.0</td>
<td>177.0</td>
<td>154.0</td>
<td>133.0</td>
<td>135.0</td>
<td>127.3</td>
<td>158.8</td>
<td>112.9</td>
</tr>
<tr>
<td>Microbiology</td>
<td>152.0</td>
<td>188.0</td>
<td>176.0</td>
<td>185.0</td>
<td>156.0</td>
<td>150.0</td>
<td>140.6</td>
<td>181.8</td>
<td>135.9</td>
</tr>
<tr>
<td>Haematology</td>
<td>117.0</td>
<td>112.0</td>
<td>118.0</td>
<td>120.0</td>
<td>92.0</td>
<td>85.0</td>
<td>84.8</td>
<td>106.9</td>
<td>87.4</td>
</tr>
<tr>
<td>Transfusion Science</td>
<td>114.0</td>
<td>112.0</td>
<td>100.0</td>
<td>98.0</td>
<td>83.0</td>
<td>87.0</td>
<td>86.1</td>
<td>95.2</td>
<td>60.2</td>
</tr>
<tr>
<td>Histology</td>
<td>76.0</td>
<td>96.0</td>
<td>76.0</td>
<td>74.0</td>
<td>56.0</td>
<td>66.0</td>
<td>36.4</td>
<td>72.1</td>
<td>47.0</td>
</tr>
<tr>
<td>Cytology</td>
<td>40.0</td>
<td>35.0</td>
<td>56.0</td>
<td>59.0</td>
<td>49.0</td>
<td>56.0</td>
<td>47.3</td>
<td>64.0</td>
<td>44.5</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>11.0</td>
<td>13.0</td>
<td>9.0</td>
<td>4.0</td>
<td>3.2</td>
<td>5.0</td>
<td>3.2</td>
<td>3.1</td>
<td>3.0</td>
</tr>
<tr>
<td>Immunology</td>
<td>31.0</td>
<td>48.0</td>
<td>46.0</td>
<td>42.0</td>
<td>31.0</td>
<td>29.0</td>
<td>31.7</td>
<td>27.1</td>
<td>17.8</td>
</tr>
<tr>
<td>Cytogenetics</td>
<td>5.5</td>
<td>13.0</td>
<td>3.5</td>
<td>3.5</td>
<td>1.2</td>
<td>2.0</td>
<td>1.2</td>
<td>2.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Virology</td>
<td>8.0</td>
<td>6.5</td>
<td>5.5</td>
<td>6.5</td>
<td>6.5</td>
<td>1.0</td>
<td>1.0</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Blood Collection</td>
<td>91.0</td>
<td>75.0</td>
<td>77.0</td>
<td>71.0</td>
<td>68.0</td>
<td>108.0</td>
<td>112.9</td>
<td>10.5</td>
<td>7.6</td>
</tr>
<tr>
<td>Administration</td>
<td>91.0</td>
<td>75.0</td>
<td>77.0</td>
<td>71.0</td>
<td>68.0</td>
<td>108.0</td>
<td>112.9</td>
<td>10.5</td>
<td>7.6</td>
</tr>
<tr>
<td>On rotation</td>
<td>56.0</td>
<td>67.0</td>
<td>64.0</td>
<td>28.0</td>
<td>40.0</td>
<td>26.0</td>
<td>41.5</td>
<td>32.5</td>
<td>35.3</td>
</tr>
<tr>
<td>Other</td>
<td>49.0</td>
<td>49.0</td>
<td>66.0</td>
<td>50.0</td>
<td>47.0</td>
<td>52.0</td>
<td>11.2</td>
<td>98.0</td>
<td>103.8</td>
</tr>
<tr>
<td>Total</td>
<td>919.5</td>
<td>988.5</td>
<td>974.0</td>
<td>895.0</td>
<td>765.9</td>
<td>802.0</td>
<td>622.5</td>
<td>853.5</td>
<td>655.4</td>
</tr>
</tbody>
</table>
Medical Laboratory Trainees

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Laboratory Technologists</td>
<td>177</td>
<td>114</td>
<td>72</td>
<td>84</td>
<td>32</td>
</tr>
<tr>
<td>Scientific Officers</td>
<td>18</td>
<td>6</td>
<td>63</td>
<td>71</td>
<td>33</td>
</tr>
</tbody>
</table>

Students (as at 1 February 1996)

<table>
<thead>
<tr>
<th>Year</th>
<th>1993</th>
<th>1994</th>
<th>1995</th>
<th>1996</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auckland Technical Institute</td>
<td>1</td>
<td>–</td>
<td>–</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>–</td>
<td>–</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>–</td>
<td>–</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>–</td>
<td>–</td>
<td>6</td>
</tr>
<tr>
<td>Massey University</td>
<td>2</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>20</td>
<td>20</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>–</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Otago University</td>
<td>2</td>
<td>40</td>
<td>40</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>30</td>
<td>33</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>–</td>
<td>25</td>
<td>30</td>
</tr>
</tbody>
</table>

* Approximate numbers

World Courier are world leaders in the handling of biological and hazardous goods. Our expertise is in providing a 24 hour, seven days a week, premium service for urgent shipments that demand immediate nationwide or worldwide door to door delivery. We handle goods that require special attention, such as chemicals, infectious specimens, and live lab animals. We are also experts in handling perishable goods on dry ice or gel pack refrigerants. Currently, we are handling shipments for over 60 clinical trials throughout Australia, New Zealand and the South Pacific Region.

With a network of over 100 offices throughout the world and a history of over 25 years of dedicated air courier service, we truly do offer you a service no-one else can deliver!

We will be an exhibitor at the International Meeting Of The Australian and New Zealand Societies for Microbiology in Christchurch this year. We will also be presenting a talk on the special requirements needed to handle the intricacies of frozen sample shipping. Please come by the booth for a chat. We look forward to meeting you and answering any questions you may have.

Joint ICP and NZ Trace Elements Groups Conference

20-22 November 1996
Hamilton, New Zealand

Venue: Le Grand Hotel, Victoria Street, Hamilton, NZ

Organised by: Waikato Branch, NZ Institute of Chemistry
NZ Trace Element Group

Topics to be included:

Trace elements – analysis, importance in agriculture, horticulture, health, and the environment.

ICP-MS and ICP-OES – instrumental technique, sample preparation, applications.

The conference will include Plenary Speakers, invited and submitted papers, a Trades display and a conference dinner.

Contact: Dr Peter Robinson
R J Hill Laboratories Ltd
PO Box 4048
Hamilton, NZ
Phone: +64 7 855 2266
Fax: +64 7 854 9886
Email Peter@rjhill.co.nz
Australian Institute of Medical Scientists National Scientific Meeting

Adelaide Convention Centre
Adelaide
7 - 11 October, 1996

Program and Registration
On behalf of the Organising Committee, we extend an invitation...

to all medical scientists and technical officers to attend the AIMS '96 National Scientific Meeting.

The Meeting will be held in Adelaide at the Adelaide Convention Centre from 7 - 11 October, 1996.

The scientific program for AIMS '96 is outstanding. Sessions will cover 'cutting edge' issues and will be designed to educate, stimulate and challenge. Workshops, scheduled both before and after the meeting, will provide valuable educational and 'hands-on' training opportunities, allowing you to improve and update your skills.

Socially, you'll have a great time at AIMS '96 - social events catering for all tastes have been planned for delegates and accompanying persons. There will be plenty of opportunities to relax, enjoy Adelaide and get to know fellow delegates. Adelaide's restaurants are superb with a wide selection close to the conference venue, and if you want to shop until you drop, the central shopping district is only a few steps away. The Adelaide region also has some of the best wine-producing areas in Australia, you'll enjoy a trip through the hills to sample their wares.

So, plan to attend now. We extend a warm invitation to colleagues throughout Australia, New Zealand and South-East Asia - COME TO ADELAIDE FOR AIMS '96.

Organising Committee
Chairman: Brian Matthews
Treasurer: Bruce Whitby
Exhibition and Sponsorship: John Glasson
Publicity: SAPMEA
Scientific Convener: John Stirling

Secretariat
All correspondence should be directed to:
SAPMEA Conventions
80 Brougham Place
North Adelaide 5006
South Australia

Conference Venue
Adelaide Convention Centre
North Terrace
ADELAIDE SA 5000

The Adelaide Convention Centre is part of a unique business and entertainment precinct, the Adelaide Plaza, nestled on the banks of the picturesque River Torrens and comprising Adelaide Convention Centre, Adelaide Casino, Hyatt Regency Adelaide and the Adelaide Festival Centre. It's a very special environment. A place that reflects success, achievement and pride.

The Exhibition
A comprehensive industry display will be held in conjunction with the Meeting, located in the Exhibition Hall. Exhibits will cover the latest technological advances, instruments and materials available in the medical sciences.

If you are interested in exhibiting, a prospectus can be obtained from the Secretariat.

Thanks to our Sponsors
Grateful acknowledgement is given for their support.

Bayer Health Care
Johnson & Johnson Clinical Diagnostics
Abbott Diagnostics Division

Scientific Program
The scientific program of AIMS '96 will focus on three main areas: Aboriginal health; molecular pathology and emerging diseases. In addition, a comprehensive range of sessions will cover important topics that will interest both scientists and technologists. All sessions will be held at the Adelaide Convention Centre.

Invited Speakers
Aboriginal Health
Lois O'Donoghue CREAM (Chair of ATSCIC); Dr Paul Torzillo (Medical Director, Nganampa Health Council, Alice Springs); Dr Jeffrey Hanna (Medical Director, Tropical Public Health Unit, Queensland Health); Dr David Pugsley (Renal Unit, The Queen Elizabeth Hospital, Adelaide); Assoc. Prof. Tony Seymour (Head of Tissue Pathology, Gribbles Pathology, Adelaide); Prof Kerin O'Dea (Pro Vice-Chancellor (Research), Deakin University).

Molecular Pathology
Randall K Saitki (Roche Molecular Systems, Alameda, California, USA) is a world leader in polymerase chain reaction (PCR) methodology and its application in the field of DNA-based diagnostics, particularly human genetic diseases. Randall holds seven patents in PCR technology and has worked closely with Kary Mullis who, with Michael Smith, received the Nobel Prize in Chemistry for developing the PCR technique. Since 1977, Randall has written, or contributed to, five book chapters and numerous journal articles in the field of molecular biology.

Emerging Diseases
Dr David Satcher has lead the Centres for Disease Control and Prevention (CDC) and administered the Agency for Toxic Substances and Disease Registry (ATSDR) since 1993. As Director of the CDC, Dr Satcher leads the agency of the US Public Health Service responsible for promoting health and preventing disease, injury and premature death. As Administrator of the ATSDR, Dr Satcher controls the public health service agency created to prevent or mitigate adverse human health effects and diminished quality of life resulting from exposure to hazardous substances in the environment. Dr Satcher has had an exceptional career having been, for example, President of Meharry Medical College, Professor and Chairman of the Department of Community Medicine at Morehouse School of Medicine (Atlanta) and Chairman of the Department of Family Medicine at King-Drew Medical Centre. For six years Dr Satcher also directed the King-Drew Sickie Cell Research Centre.

During 1995, Dr Satcher chaired a US Government Working Group on emerging and Re-emerging Infectious Diseases which was convened to consider the global threat of infectious disease.

Dr David Anstee is the Director of the International Blood Group Reference Laboratory in Bristol, UK. His main area of interest, apart from reference services for transfusion laboratories is the structure and function of blood group-active proteins of the human red cell. However, his interests also include the molecular biology of blood groups (particularly the role of foetal DNA typing in HDN), the use of monoclonal antibodies as diagnostic and therapeutic agents, and the potential role of transfusion services in gene therapy. Dr Anstee was awarded the Jean Julliard Prize of the ISBT in 1980. During his distinguished scientific career he has published 111 research papers and 32 reviews and book chapters.

General Information
Parking
There are several parking facilities adjacent to the Venue. Early bird rates are available, in by 0900 out by 1830.

Entrance to the Meeting
Each attendee of the Meeting will receive a name badge at registration. This badge will be your official pass and must be worn at all times to obtain entry to meeting sessions, social functions, morning & afternoon teas and lunches.

Registration Desk and Check In
The Conference registration desk will be situated in Foyer 1, Adelaide Convention Centre. It will be open from 1700-1900 Monday 7 October for check in and on-site registration, and from 0730-1700 during the Conference.

Deadlines

<table>
<thead>
<tr>
<th>Event</th>
<th>Deadlines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Bird Registration</td>
<td>12 August</td>
</tr>
<tr>
<td>Cancellations</td>
<td>23 August</td>
</tr>
<tr>
<td>Accommodation Reservations</td>
<td>2 October</td>
</tr>
</tbody>
</table>

NZ Med Lab Science 1996
Workshops
Participation in workshops is not restricted to fully registered AIMS '96 delegates, workshops are open to everyone. If you wish to register for workshops only, simply complete the appropriate sections of the registration form (name/address, workshops and payment details). Most workshops will be held at the Adelaide Convention Centre, North Terrace, Adelaide.

**Fees for Workshops**

<table>
<thead>
<tr>
<th>GA, GF &amp; GG</th>
<th>Full-day workshops</th>
<th>$100 each</th>
</tr>
</thead>
<tbody>
<tr>
<td>GB, GD, GH, GI &amp; GJ</td>
<td>Half-day workshops</td>
<td>$50 each</td>
</tr>
<tr>
<td>GC</td>
<td>How to Give Great Presentations</td>
<td>$90</td>
</tr>
<tr>
<td>GE</td>
<td>How to Chair a Scientific Meeting</td>
<td>$25</td>
</tr>
<tr>
<td>GK</td>
<td>Pathology Specimens by Air 1996</td>
<td>$90</td>
</tr>
</tbody>
</table>

**Workshop Topics**

**Monday 7 October**

- **0900-1600** GA Information Technology (I & II) - David Menzes
- **0900-1200** GB Image Analysis and Microscopy - Lyn Jarvis
- **1230-1630** GC How to Give Great Presentations - Terry Grimmond
- **1300-1600** GD Breast Aspiration Cytology - Susan Croll
- **1700-1830** GE How to Chair a Scientific Meeting - Terry Grimmond

**Friday 11 October**

- **0830-1230** GK Pathology Specimens by Air 1996 - Sandra Rajan
- **0900-1200** GF Parastinology (I & II) - Andrew Butcher
- **0900-1600** GG Innovations in Haemostasis (I & II) - Noel Walmsey
- **1200-1600** GH Basic Diagnostic PCR - Randall Saki
- **1600-1700** GI Advanced Diagnostic PCR - Randall Saki

**Social Program**

**Welcome Reception — 7 October 1996**

Join us for drinks and savouries in a relaxing atmosphere created by the traditional Aboriginal tunes of the didgeridoo. Take the opportunity to make new contacts, catch up with old friends and set the scene for the following days. The Reception will be held in Hall E of the Convention Centre. Included in full registration, $25 for each extra ticket.

**Restaurant Evening — 8 October, 1996**

Each restaurant will have a set menu, not including Beverages. Transport will be at your own arrangement. Beverages are the responsibility of the individuals.

- Café Tapas, 242 Rundle St, Adelaide. Spanish cuisine — Banquet of 7 dishes @ $25 per person.
- Gekkos Landing Restaurant Bar, War Memorial Drive, North Adelaide. European style — Set menu. 3 courses with choices @ $30 per person. For those wishing to continue their evening, dancing is available. Approximate cost of taxi is $6.
- HMS Buffalo, Patawalonga Boat Haven, Adelphi Te, Glenelg. European style — Governor's Menu, 3 courses with choices @ $35 per person. Approximate cost of taxi is $17.
- Dinner on an 1813 style Tall Oval, Patawalonga Boat Haven, Glenelg. European style — Banquet of 7 dishes @ $25 per person.

**Toys, Tacos & Tapas, 1986**

Opposite venue. $180 single/dble/twin.

**Conference Dinner — 10 October, 1996**

1930 for 2000

Dinner Dance to be held at the Hindley Parkroyal, 65 Hindley Street, Adelaide. Pre-dinner drinks, a three course meal with wines and entertainment are all included. Seating will be limited so book early. $70 per ticket.

**Accompanying Persons Program**

Registered accompanying persons will receive an official name badge.

**Introductory Morning Tea & Adelaide Sights Tour**

8 October 1996

0900-1200

We would be delighted to welcome you at morning tea on Tuesday morning. A representative from A Little Shopping and Touring will introduce you to the range of attractions and tours available. This is an opportunity to meet other "accompanying persons".

Following morning tea there will be a short tour introducing some of the special features of the city, including the Festival theatre, home of the world-famous Festival of Arts, and Adelaide Oval, considered by many as the most picturesque cricket ground in the world, interesting eating spots, shopping areas and markets are suggested as you learn of Adelaide's rich heritage, culture and lifestyle. [Includes: Pickup from Adelaide Convention Centre 1100. 1 hr guided tour and return to Adelaide Convention Centre.]

**Registration**

Participation is open to all persons interested in the medical sciences.

<table>
<thead>
<tr>
<th>Fees</th>
<th>By 12 August</th>
<th>After 12 August</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIMS/NZIMLS Member</td>
<td>$180.00</td>
<td>$140.00</td>
</tr>
<tr>
<td>Non-Member</td>
<td>$430.00</td>
<td>$460.00</td>
</tr>
<tr>
<td>Student*</td>
<td>$180.00</td>
<td>$210.00</td>
</tr>
<tr>
<td>Day - Member</td>
<td>$140.00</td>
<td>$150.00</td>
</tr>
<tr>
<td>Day - Non-Member</td>
<td>$135.00</td>
<td>$175.00</td>
</tr>
<tr>
<td>Day - Student*</td>
<td>$50.00</td>
<td>$60.00</td>
</tr>
</tbody>
</table>

* "Student" at all times refers only to full time students. Verification from your Course Co-ordinator must be enclosed with your registration form in order to be accepted.

**Full and Student registration** includes the Welcome Reception, attendance at sessions [8-10 October], refreshments and lunches during the conference, delegate pack and handbook.

**Day registration** includes attendance at sessions, refreshments, lunch, delegate pack and handbook on nominated day/s [8-10 October].

**Application and Remittance**

Those attending the Conference must complete a registration form (or a photocopy) and return it, complete with payment, to the Secretariat. Fees must be paid in Australian Dollars either by cheque or credit card. Cheques are to be payable to SAPMEA. Registration Forms received without fees, will not be processed.

Note: Each active participant must make a separate application.

**Confirmation and Receipt**

The Secretariat will send a confirmation letter acknowledging your registration, accommodation booking and payment if registration forms and remittance are received by 23 September, 1996. Please bring this letter with you to the on-site registration desk at the Conference.

**Cancellations and Refunds**

Cancellation of registration must be made to writing to the Secretariat, and fees will be refunded as follows:

- On or before 23 August, 1996
  - 100% of fees, less $75 fee to cover administrative costs
- After 23 August, 1996
  - No refund

**Accommodation**

Special Rates have been negotiated with the following hotels for the duration of the conference. These can only be booked through the Conference Secretariat, Section C of the Registration Form.

- **Hindley Parkroyal Hotel**, 65 Hindley Street, Adelaide. 5 minutes walk to venue. $165 single/dble/twin.
- **Holiday Inn Park Suites**, 255 Hindley Street, Adelaide. 5 minutes walk to venue. Self contained. $112 one bedroom, $135 two bedroom. $20 per extra person.

**Deposit**

A deposit of one night's tariff must be paid to secure your reservation. Please include this payment with your registration fee.

**Refunds**

The room deposit is non-refundable after 23 August, 1996. Please note that your deposit will be forfeited if you do not arrive on the date booked.

**Changes**

Please notify any changes to your booking to the Secretariat, so that the hotel knows that the room is pre-registered and won't release the room when you do not arrive on the reserved date. This will incur the cost of a night's tariff.

**Abstract Deadline**

Final Receipt date: 12 July

No submission will be accepted after this date.

Due to popular request the Deadline date for submission of Abstracts has been extended.
Travel and Tours
SAPMEA Travel are pleased to announce Ansett Australia are the preferred airline for this conference. To ensure that you are advised of all fares and services available, please contact SAPMEA Travel. Telephone: [08] 239 1515. Facsimile: [08] 239 1566 and quote the following:
Ansett Master File Number: MC06249

Travel Insurance
Most airfares are non-refundable and we strongly advise delegates travel insurance to cover non-attendance due to illness. Cover is provided for non-refundable deposits on accommodation and airfares. Single policy is only $17.

Car Hire
A special "Discount Convention Rate" has been arranged for all Delegates attending the conference in Adelaide. Should you require your car hire please contact SAPMEA Travel.

Car hire rates for this conference

<table>
<thead>
<tr>
<th>CAR TYPE</th>
<th>GROUP</th>
<th>COST PER DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ford Laser Hatch (s/m)</td>
<td>Group B</td>
<td>From $62 per day</td>
</tr>
<tr>
<td>Ford Laser Sedan (mid)</td>
<td>Group C</td>
<td>From $64 per day</td>
</tr>
<tr>
<td>Ford Falcon (lg)</td>
<td>Group D</td>
<td>From $69 per day</td>
</tr>
</tbody>
</table>

All Prices Include
Collision Damage Waiver, unlimited kilometres and $500.00 excess in case of accident damage. Pick up and Drop off for cars can be arranged at City or Airport locations.

Pre & Post Conference Tours
F01 Flinders Ranges 3 Day Getaway
Friday 4 October - Sunday 6 October, 1996
[Incl: 3 Day in the Barossa Valley]

F02 Kangaroo Island Day Tour
[Incl: Kangaroo Island] $199
Yalata Community, Kangaroo Island and upon arrival at Kingscote Airport you will be met by our air-conditioned coach and local guide. See traditional eucalyptus oil distilled (receive a sample bottle of eucalypt oil), visit the world famous sea lion colony at Seal Bay, view the natural splendour of Killy Caves, feed kangaroos and wallabies and see koalas in their natural habitat. Experience the unspotted spectacular scenery of nature's pleasure island including Remarkable Rocks, Cape du Couedic Lighthouse and Ayres Arch on this all encompassing tour.

Pre and post conference tours may be avaiable.

TRAVEL CONDITIONS OF BOOKING
Prices shown for Travel arrangements are valid for the duration of the Convention, but remain subject to variation without notice. All prices are quoted in Australian dollars.

AIR FARES - Published fares and special Convention fares quoted in this publiction are subject to availability. SAPMEA Travel will be happy to assist in the selection of the most competitive fares available at the time of booking.

RENTAL VEHICLES - Basic details of rental conditions are available from SAPMEA Travel.

AVAILABILITY AND TOUR AMENDMENTS - All packages include the above listed items and are subject to availability.

PAYMENT CONDITIONS - Payment for Travel arrangements will be taken to secure a reservation. Failure to lodge the payment by the stipulated date will result in reservations being automatically cancelled.

CANCELLATION AND REFUNDS - Cancellation fees apply. Cancellation of bookings must be submitted in writing to SAPMEA Travel. RESPONSIBILITY - SAPMEA Travel and our associated travel organisations, finalise all arrangements of these travel options upon the express condition that this shall not be liable for any injury, damage or loss caused by accident, illness, gate strikes, natural disasters or any other cause, and that it is the responsibility of the Lessee to secure Travel Insurance.

SAPMEA Travel will not be liable for any injury to or loss by Lessee as a result of non-performance or non-availability of any service due to causes beyond the control or general utility of the service provider. Lessee shall indemnify SAPMEA Travel against any claims, losses, damages, liabilities, expenses or costs arising out of or in connection with the use of any services, and the Lessee shall hold SAPMEA Travel harmless from any loss, damage or expense caused to Lessee or any other party.

SAPMEA Travel shall not be responsible for any loss or injury of whatever description howsoever arising (whether through negligence or otherwise) which you may suffer or sustain in the course or consequence of your journey.
REGISTRATION FORM
AIMS 1996 Annual Scientific Meeting
7 - 11 October, 1996

Return completed form together with your remittance to:
AIMS 96
SAPMEA Conventions
80 Brougham Place
North Adelaide SA 5006
AUSTRALIA

Phone: +61 8 239 1515
Facsimile: +61 8 239 1566

Section A - Registration Details
Title [Prof/Dr/Mr/Mrs/Ms]: ___________ Family Name: ____________________________
First Name: ____________________________
Name to appear on name badge: ____________________________
Position: ____________________________
Institution/Organisation: ____________________________ Contact Address: ____________________________
City/Town: ____________________________ State: ____________________________ Postcode: ____________
Telephone: ____________________________ Facsimile: ____________________________ Email: ____________________________
First and Family Name of accompanying person[s]: ____________________________
Please note any special requirements regarding health, diet, etc:

Section B - Registration Fees

<table>
<thead>
<tr>
<th></th>
<th>by 12 August</th>
<th>after 12 August</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIMS/NZIMLS Member</td>
<td>A$380.00</td>
<td>A$410.00</td>
</tr>
<tr>
<td>Non-Member</td>
<td>A$430.00</td>
<td>A$460.00</td>
</tr>
<tr>
<td>Student</td>
<td>A$180.00</td>
<td>A$210.00</td>
</tr>
<tr>
<td>Day - Member</td>
<td>A$140.00</td>
<td>A$150.00</td>
</tr>
<tr>
<td>Day - Non-Member</td>
<td>A$150.00</td>
<td>A$175.00</td>
</tr>
<tr>
<td>Day - Student</td>
<td>A$ 50.00</td>
<td>A$ 60.00</td>
</tr>
</tbody>
</table>

Please indicate day(s) of attendance: Tue [ ] Wed [ ] Thu [ ]
Sub Total Section B $ ________

Section C - Accommodation

A deposit of one night's accommodation is required to confirm your booking.

Rates quoted are per room per night and do not include breakfast, unless indicated. Accommodation charges are fully payable to the hotel on check out. Please list your hotel preferences:
1. ____________________________
2. ____________________________
3. ____________________________

Date of arrival: ____________, Approx time of arrival: ____________
Date of departure: ____________, Type of Room: ____________
Sharing with: ____________________________

[If sharing a room it is important for only one person to make the reservation on their registration form, and send only ONE deposit.]

Sub Total Section C $ ________

Section D - Social Program

Please indicate your attendance by placing a tick in the appropriate box. Catering cannot be guaranteed unless you complete this section:

Welcome Reception, 7 October [included in full registration] [ ]
Number of additional tickets required [ ] @ $25 ea $ ________

Restaurant Evening, 8 October
Please indicate your choice and include payment:
Cafe Tapas @ $25 [ ] Gekkos @ $30 [ ] HMS Buffalo $ 35 [ ]
Number of tickets required _____ @ $___ ea $ ________

Conference Dinner, 10 October
Number of tickets required [ ] @ $70 ea $ ________

Accompanying Partners
Introductory Morning Tea & Adelaide Sights Tour
Number of tickets required [ ] @ $45 ea $ ________

Sub Total Section D $ ________

Section E - Travel

Airfares
Please contact SAPMEA Travel to obtain your cost and booking number
Booking number: ____________ Fare Quoted $ ____________

Airline Frequent Flyer Membership Number ____________________________

Insurance
Travel Insurance @ $17.00 [ ] $ ________
[Please tick if required]

Car Hire
Please contact SAPMEA Travel to obtain your costs and booking number:
Booking number: ____________ Car Type ____________________________
Group ________ Cost @ $ ________ per day $ ________

Sub Total Section E $ ________
**Section F - Tours**

**F01 - Flinders Ranges 3 Day Getaway**  
Friday 4 - Sunday 6 October  
$365 per person  Number of persons [ ]  
$65 single supplement  Total $______

**F02 Kangaroo Island Day Tour,**  
Please indicate preferred day and date  
$199 per person  Number of persons [ ]  
Total $______

**F03 A day in the Barossa Valley**  
Sunday 6 October  
$93 per person  Number of persons [ ]  
Total $______

**F04 Butterflies & Riverboats**  
Monday 7 October  
$59 per person  Number of persons [ ]  
Total $______

**F05 Adelaide’s Exclusive Shopping Experience**  
Tuesday 8 October  
$55 per person  Number of persons [ ]  
Total $______

**F06 Hahndorf/Mount Lofty Summit/Cleland Wildlife Park**  
Wednesday 9 October  
$60 per person  Number of persons [ ]  
Total $______

**F07 Jam Factory Craft and Design Centre/Carrick Hill**  
Wednesday 9 October  
$60 per person  Number of persons [ ]  
Total $______

**F08 Warrawong Sanctuary - Dawn Tour**  
Friday 11 October  
$66 per person  Number of persons [ ]  
Total $______

**F09 Glenelg/Port Adelaide Maritime Museum**  
Friday 11 October  
$60 per person  Number of persons [ ]  
Total $______

**F10 Weekend Escape Cruise Aboard the Murray Princess**  
Friday 11 - Sunday 13 October  
$360 per person (Twin Share)  
Number of persons [ ]  $______  
$520 per person (Sole Occupancy)  
Number of persons [ ]  $______  
$200 per Extra Adult or Child Sharing  
Number of persons [ ]  $______  
Total $______

Sub Total Section F $______

---

**Section G - Workshops**

**Day Workshop @ $100**  
Monday 7 October  
GA Information Technology (I & II)  
□ Total $______  
Friday 11 October  
GF Parasitology (I & II)  
□  
GG Innovations in Haemostasis (I & II)  
□ Total $______

**Morning Workshop @ $50**  
Monday 7 October  
GB Image Analysis  
□ Total $______

**Afternoon Workshop @ $50**  
Monday 7 October  
GH Basic Diagnostic PCR  
□ Total $______

**GJ Basic Biochemistry**  
Afternoon Workshop @ $50  
Monday 7 October  
GI Advanced Diagnostic PCR  
□ Total $______

**Morning Workshop @ $90**  
Friday 11 October  
GK Pathology Specimens by Air 1996  
□ Total $______

**One Hour Workshop @ $25**  
Monday 7 October  
GC How to Give Great Presentations  
□ Total $______

Sub Total Section G $______

---

**Section H - REMITTANCE**

Section B: Registration Fees $______
Section C: Accommodation $______
Section D: Social Program $______
Section E: Travel $______
Section F: Tours $______
Section G: Workshops $______
Total Remittance: $______

Credit Card Number:  
[ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ] [ ]

Expiry Date: _____________ Amount to charge: $______

Name of card holder: ____________________________

Signature of card holder: _______________________

---

I: Enclose a Cheque (Cheque made payable to SAPMEA)  
Assign a credit card transaction below

Credit Card  Please indicate
Visa  □ Mastercard  □ Bankcard  □
Diners Club  □ American Express  □

---

NJ Med Lab Science 1996

111
## WORKSHOP PROGRAM

### Monday, 7 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800-1700</td>
<td>Registration - Workshops only</td>
<td>Foyer 1</td>
</tr>
<tr>
<td>0900-1200</td>
<td>GA</td>
<td>Information Technology Part I</td>
</tr>
<tr>
<td>0900-1200</td>
<td>GB</td>
<td>Image Analysis and Microscopy</td>
</tr>
<tr>
<td>0900-1200</td>
<td>Trade Workshop</td>
<td></td>
</tr>
<tr>
<td>1300-1600</td>
<td>GA</td>
<td>Information Technology Part II</td>
</tr>
<tr>
<td>1230-1630</td>
<td>GC</td>
<td>How to Give Great Presentations</td>
</tr>
<tr>
<td>1300-1500</td>
<td>GD</td>
<td>Breast Aspiration Cytology</td>
</tr>
<tr>
<td>1700-1830</td>
<td>GE</td>
<td>How to Chair a Scientific Meeting</td>
</tr>
</tbody>
</table>

### Friday, 11 October

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800-1600</td>
<td>Registration</td>
<td>Foyer 1</td>
</tr>
<tr>
<td>0930-1230</td>
<td>GK</td>
<td>Pathology Specimens by Air 1996</td>
</tr>
<tr>
<td>0900-1200</td>
<td>GF</td>
<td>Parasitology Part I</td>
</tr>
<tr>
<td>0900-1200</td>
<td>GG</td>
<td>Innovations in Haemostasis Part I</td>
</tr>
<tr>
<td>0900-1200</td>
<td>GH</td>
<td>Basic Diagnostic PCR</td>
</tr>
<tr>
<td>0900-1200</td>
<td>GJ</td>
<td>Basic Biochemistry</td>
</tr>
<tr>
<td>1300-1500</td>
<td>GF</td>
<td>Parasitology Part II</td>
</tr>
<tr>
<td>1300-1600</td>
<td>GG</td>
<td>Innovations in Haemostasis Part II</td>
</tr>
<tr>
<td>1300-1600</td>
<td>GI</td>
<td>Advanced Diagnostic PCR</td>
</tr>
</tbody>
</table>

---

**MEDICAL SCIENTISTS COME AND WORK IN THE UK!**

Our free service gives you:

- A superb choice of locum assignments throughout England
- Top rates of pay, paid weekly
- Free Professional Liability insurance
- Meet and Greet service on arrival at London airport
- Accommodation arranged - from your first night on
- Exclusive orientation program at our associate’s offices in the centre of London
- Access to our local experience in helping New Zealanders arrange UK visas, professional registration, airfares...

Find out why so many New Zealanders like you have chosen us to help them find the right job overseas.

Call Catherine Olsen on 0800 803 554 - 61 Malvern Road, Mt. Albert, Auckland 1003
SEMINARS

Monday, 7 October

1300-1600  Dade Reagent Users Group

Friday, 11 October

1400-1500  CSL Bio-Vue Seminar

PROGRAM

Monday, 7 October

1700 - 1900  Pre Registration  Foyer 1 - Adelaide Convention Centre

Tuesday, 8 October

0800 - 0900  Registration  Foyer 1 - Adelaide Convention Centre

0900 - 1030  Opening Session
Opening and Welcome
Fellowship Presentations and Awards
Saal Foley Lecture — Musings on the Mesothelium
Chairperson: T Grimmond
M Armitage
L O'Donohue
D Whitaker

1100 - 1230  Aboriginal Health and Medical Scientists
Overview of Aboriginal Health  Chairperson: T Grimmond
P Torzillo
L O'Donohue

1330 - 1500  Aboriginal Health
Obesity, Diabetes, Coronary Heart Disease
Renal Disease
K O'Dea
D Pugsley
T Seymour
Infectious Diseases
Immunisation Issues for Aboriginal People
Community acquired Fungal Infections in Rural Australia with Emphasis on Aboriginal Health
J Hanna
D Ellis

1530 - 1700  Aboriginal Health
Infectious Diseases
STD Control in Rural Aboriginal Communities
Major Communicable Disease Outbreaks in Aboriginal People
G Hart
J Hanna

1715-1745  AIMS Annual General Meeting
# PROGRAM

**Wednesday, 9 October**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800 - 1700</td>
<td><strong>Registration</strong></td>
</tr>
<tr>
<td>0900 - 1030</td>
<td>Plenary Session 1 — Molecular Pathology</td>
</tr>
<tr>
<td></td>
<td>The Diagnosis of Genetic Diseases by PCR</td>
</tr>
<tr>
<td></td>
<td>The Human Genome Project: Aims and Progress</td>
</tr>
<tr>
<td>1100 - 1230</td>
<td><strong>MORNING TEA</strong></td>
</tr>
<tr>
<td></td>
<td>QAP Forum: Future Directions</td>
</tr>
<tr>
<td></td>
<td>Transfusion Medicine</td>
</tr>
<tr>
<td></td>
<td>Biochemistry</td>
</tr>
<tr>
<td></td>
<td>Immunology</td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
</tr>
<tr>
<td></td>
<td>QAP Forum: Future Directions</td>
</tr>
<tr>
<td></td>
<td>Transplantation</td>
</tr>
<tr>
<td></td>
<td>Transfusion</td>
</tr>
<tr>
<td></td>
<td>Microbiology</td>
</tr>
<tr>
<td></td>
<td>The Diagnosis of Genetic Diseases by PCR</td>
</tr>
<tr>
<td></td>
<td>The Human Genome Project: Aims and Progress</td>
</tr>
<tr>
<td>1330 - 1500</td>
<td><strong>LUNCH</strong></td>
</tr>
<tr>
<td></td>
<td>NATA &amp; ISO 9000</td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
</tr>
<tr>
<td></td>
<td>Tissue Pathology</td>
</tr>
<tr>
<td></td>
<td>Clinical Chemistry</td>
</tr>
<tr>
<td></td>
<td>Microbiology</td>
</tr>
<tr>
<td>1530 - 1700</td>
<td><strong>AFTERNOON TEA</strong></td>
</tr>
<tr>
<td></td>
<td>Management Related Issues</td>
</tr>
<tr>
<td></td>
<td>Organisational Restructuring</td>
</tr>
<tr>
<td></td>
<td>Haematology</td>
</tr>
<tr>
<td></td>
<td>Clinical Chemistry</td>
</tr>
<tr>
<td></td>
<td>Microbiology</td>
</tr>
</tbody>
</table>

**NATA & ISO 9000**

- **Haematology**
  - Mutations In Haemophilia A & B
  - Minimal Residual Disease

- **Tissue Pathology**
  - Enzyme Replacement Therapy
  - Technological Advances in Neonatal Screening and their Impact

- **Clinical Chemistry**
  - Fish Disease in and Around South Australia

- **Microbiology**
  - Pathogenic Free-Living Amoebae
  - Ecology of Free-Living Amoebae and Sources of Infection
  - Fish Disease in and Around South Australia

**Preferred Papers**

- Management Related Issues
  - Organisational Restructuring

- Haematology
  - Foetal DNA Typing
  - Identification and Analysis of Rh genes

- Clinical Chemistry
  - Recent Advances in the Routine
  - Biochemical Detection of Myocardial Damage
### PROGRAM

**Thursday, 10 October**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>0800 - 1700</td>
<td>Registration</td>
</tr>
<tr>
<td>0900 - 1030</td>
<td>Plenary Session 2 — Emerging Diseases</td>
</tr>
<tr>
<td></td>
<td>Global Infectious Disease Surveillance and Response: A CDC Perspective</td>
</tr>
<tr>
<td></td>
<td>The Diagnosis of Infectious Diseases by PCR</td>
</tr>
<tr>
<td>1030 - 1130</td>
<td>Morning Tea</td>
</tr>
<tr>
<td></td>
<td><strong>Haemostasis</strong> Chairperson: E Duncan</td>
</tr>
<tr>
<td></td>
<td>Inhibitors of the Coagulation Pathway: An Overview</td>
</tr>
<tr>
<td></td>
<td>H Salem</td>
</tr>
<tr>
<td></td>
<td>New Agents for the Treatment of Thrombosis: A Gallus</td>
</tr>
<tr>
<td></td>
<td>The Effect of Australian Snake Venoms on the Haemostatic Pathways of Man</td>
</tr>
<tr>
<td></td>
<td>V Williams</td>
</tr>
<tr>
<td></td>
<td><strong>Re-engineering Work Practices</strong></td>
</tr>
<tr>
<td></td>
<td>Process Re-engineering</td>
</tr>
<tr>
<td></td>
<td>R Alexander</td>
</tr>
<tr>
<td></td>
<td>Organisational Re-design</td>
</tr>
<tr>
<td></td>
<td>L Miller</td>
</tr>
<tr>
<td></td>
<td><strong>Microbiology</strong></td>
</tr>
<tr>
<td></td>
<td>Opportunistic Infections in AIDS</td>
</tr>
<tr>
<td></td>
<td>P McDonald</td>
</tr>
<tr>
<td></td>
<td>Emerging Viral Diseases</td>
</tr>
<tr>
<td></td>
<td>C Burrell</td>
</tr>
<tr>
<td></td>
<td><strong>Immunology</strong></td>
</tr>
<tr>
<td></td>
<td>Transfection of Mammalian Cells with Nuclear Auto Ag: A New Approach to Diagnosing ANA T Gordon</td>
</tr>
<tr>
<td></td>
<td>Monoclonal Antibodies as Diagnostic &amp; Therapeutic Agents: D Antsee</td>
</tr>
<tr>
<td>1130 - 1230</td>
<td>Education &amp; Professional Training Chairperson: R Flower</td>
</tr>
<tr>
<td></td>
<td>A National Curriculum for Technical Training: The Scitech Project M Jones</td>
</tr>
<tr>
<td></td>
<td>Implementing a Scitech Medical Laboratory Science Curriculum: G Perkins</td>
</tr>
<tr>
<td></td>
<td>Diplomas and Degrees: A Distance Education Perspective: G MacKenzie</td>
</tr>
<tr>
<td></td>
<td>Diplomas and Degrees: Training a Workforce for Clinical Diagnostic Laboratories: B Day</td>
</tr>
<tr>
<td>1230 - 1330</td>
<td>Lunch</td>
</tr>
<tr>
<td>1330 - 1500</td>
<td>Afternoon Tea</td>
</tr>
<tr>
<td></td>
<td><strong>Proffered Papers</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Closing Ceremony</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Guest Lecture</strong></td>
</tr>
<tr>
<td>1530 - 1630</td>
<td>Afternoon Tea</td>
</tr>
<tr>
<td></td>
<td><strong>Chairperson: T Grimmond</strong></td>
</tr>
</tbody>
</table>
WORKSHOP DETAILS

Monday 7 October

Information Technology
David Menzies
Women’s & Children’s Hospital, ADELAIDE
0900-1600 Parts I & II

This workshop will provide an introduction to Information Technology focussing on what is currently used in the workplace. Equipment will be available for ‘hands-on’ experience. Topics to be covered include:

- Basic introduction to computers: windows and multitasking. Email and electronic diaries, multimedia and peripheral equipment.
- A brief introduction to word processing (Word for Windows), spreadsheets (Excel), databases (Access) and presentation software (Powerpoint).
- An introduction to the Internet and the World Wide Web.
- Where information technology is going in the future.

David Menzies has been the manager of the Information Technology Services Department at the Women’s and Children’s Hospital, Adelaide for eleven years. David will be assisted by members of his staff during ‘hands-on’ sessions.

Image Analysis and Microscopy
Lyn Jarvis
Leading Edge Pty Ltd, 69 Finnis St, MARION SA 5043
0900-1200 — Registration limited to 20

Most people will be familiar with computer images, and with the sort of results obtained by image processing. The same techniques can be applied to any source of images including microscopy. Image analysis is the application of this technology to make measurements and produce numerical data. This provides a quantitative description of the specimen and allows objective evaluation.

However, the ability to produce meaningful data is necessarily affected by the characteristics of the specimen and given the current state of technology these must be simple and well defined.

It is fortunate that so many specific staining procedures match well with this requirement and when seen as a means to improving staining techniques image analysis is a natural progression towards quantifying the result. This workshop will present techniques of image analysis applied to microscopy and measurement of specific staining methods.

Dr Jarvis is a leading Australian authority in the area of image analysis.

How to Give Great Presentations
Terry Grimmond
Effective Presentations
HAMILTON EAST NEW ZEALAND
1700-1830 — Registration limited to 60

"The most valuable I have ever gained from ANY "
workshop"
Alana Stoka, Mount Gambier Health

Talking with confidence and style at meetings and conferences requires skill. This interactive workshop is designed to help you become a more effective presenter by teaching you the HOW of: designing your talk; overcoming nerves; design of slides and overheads; dress; body language; manuscript vs memory; vocal technique; clarity; microphone use; avoiding the top six audience turnoffs; equipment use; handling difficult questions and keeping audiences attentive and participating. Terry's book "How to Deliver Effective Presentations" is included in the cost.

Terry has conducted this top-quality workshop throughout Australia and New Zealand and is well-known as an outstanding presenter and workshop leader. Several thousand individuals from more than 500 organisations have attended his sessions and, in their evaluations, every single participant has stated that they would recommend the workshop to colleagues.

Breast Aspiration Cytology
Svante Orell
Clinpath Laboratories, ADELAIDE
1300-1600 — Registration limited to 40

In recent years, fine needle biopsy of the breast has taken on a new dimension with the introduction of mammographic screening for breast cancer. The needling of non-palpable lesions by stereotactic or ultrasonic guidance has lead to a greater experience of the cytology of proliferative processes in the borderline between benign and malignant. These are particularly difficult to assess cytologically. The aim of this workshop will be in the form of a short introductory lecture followed by microscopy of circumstantial cases. Previous knowledge of FNA breast cytology is recommended.

Associated Professor Svante Orell is co-author of Manual and Atlas of Fine Needle Aspiration Cytology.

How To Chair A Scientific Meeting
Terry Grimmond
Effective Presentations
HAMILTON EAST NEW ZEALAND
1700-1830 — Registration limited to 60

The success of a scientific meeting depends on the smooth running of the lecture sessions. This interactive workshop aims to improve the skills of session chairpersons. Topics covered will be: the conference lead-up; briefing of speakers; timing; speaker introductions; audiovisual equipment; venue set-up; assertiveness; question time and crowd control. The cost includes a copy of Terry’s monograph ‘How to Effectively Chair Seminar Sessions’.

Terry Grimmond is well-known throughout Australia and New Zealand as an outstanding presenter, workshop leader and professional chairperson.

Friday 11 October

Pathology Specimens by Air 1996
Sandra Rajan
Training Consultant, Institute of Medical and Veterinary Science, Frome Road, ADELAIDE
830-1230 — Registration limited to 18

The regulations for transporting specimens by air are becoming stricter every year and you can now be prosecuted for non-compliance with International Air Transport Association (IATA) regulations.

Pathology Specimens by Air is a four-hour training course based on the IATA regulations for the shipment of infectious substances and dry ice by air. The course has been approved by the Civil Aviation Safety authority and has been specifically designed for medical and pathology industry personnel who ship specimens by air. Specifically, you will be taught how to check that a consignment of pathology specimens has been correctly classified, identified, packed, marked, labelled and documented in accordance with IATA regulations. The cost includes an extensive training manual and regular updates are sent to participants. A certificate will be issued on successful completion of the course.

Sandra Rajan is fully trained in dangerous goods acceptance and has five years experience sending specimens intrastate, interstate and overseas. Previously, Pathology Specimens by Air has been run successfully in South Australia and Queensland with participants from Australia, New Zealand and Fiji.

NZ J Med Lab Sci 1996
116
Bayer congratulates the NZIMLS on 50 years of support for medical laboratory scientists. We look forward to participating in the Golden Anniversary Conference. Visit stands 33 & 34 to experience the past, present and future in technology from BAYER . . .
This workshop will focus on human intestinal parasites encountered in routine diagnostic laboratories in Australia. It will be suitable for experienced parasitologists wishing to investigate new techniques and emerging new pathogens but at the same time the workshop will cover human intestinal protozoa followed by and afternoon session investigating helminth infections.

In the morning session we will focus on the technical aspects of the modified iron haematoxylin stain and its use in a routine laboratory for the detection of intestinal protozoa. The use of the stain in large and small laboratories will be discussed along with stain maintenance, quality control, safety and the finer technical points. The stain technique will be demonstrated and there will be the opportunity for hands on experience. A number of cases will be presented to demonstrate the morphological characteristics of intestinal protozoa in the modified iron haematoxylin stain.

In the afternoon session a variety of helminth infections will be presented and discussed. Each participant will be provided with a set of case slides or fixed faecal suspensions which will be viewed and discussed during both sessions.

Andrew Butcher has extensive experience in diagnostic parasitology both in Australia and Canada. Recent publications include Cyclostomata in Australia and the first description of the intestinal fluke Brachylaima sp. in humans. Both of these organisms will be discussed during the workshop.

The aim of this workshop is to present and discuss recent advances in haemostasis testing and treatment practice. This is one-day, dry workshop intended for laboratory staff and pathologists with either a general or specialised interest in haemostasis. Expert Australian speakers will cover a range of topics including genetic testing in haemophilia, diagnosis of thrombophilia and a review of new commercial products. Participation of the audience during discussion time will be encouraged to allow a wide exchange of views. The convenor is Liz Duncan, IMVS, who is organising the workshop as a joint presentation by AIMS, the Haematology Society of Australia and the Australian Society for Thrombosis and Haemostasis.

The polymerase chain reaction (PCR) is a simple in vitro DNA/RNA amplification procedure that can amplify a targeted nucleic acid sequence by many orders of magnitude. The selective enrichment provided by this technology greatly simplifies subsequent analytical procedures and has had a profound affect in almost all areas of biological investigation.

This workshop is intended for those who are unfamiliar with PCR or would like a refresher course. The session will focus on the fundamental principles of PCR as they are applied to non-commercial (home-brew) diagnostic assays. Topics to be covered include basic PCR mechanisms, laboratory set-up, the importance of contamination control, and quality control issues. An extensive discussion of PCR optimisation, including primer design, will familiarise participants with common failure modes and how to overcome them. Specimen preparation (pre-PCR) and product analysis (post-PCR) methods will be surveyed to introduce the wide variety of approaches available.

Finally, several PCR-based genetic and infectious disease assays will be examined as model systems.

Randall Saiki is a world leader in polymerase chain reaction (PCR) methodology and its application in the field of DNA-based diagnostics, particularly human genetic diseases. Randall holds seven patents in PCR technology and has written, or contributed to, five book chapters and numerous journal articles in the field of molecular biology.
NZIMLS CONTINUING EDUCATION

SPECIAL INTEREST GROUPS
Microbiology
Special Interest Group

Convenor: Jan Deroles – Main Contact Address: Medical Diagnostics Palmerston North

Annual seminar 20th April 1996 in Rotorua

There were 134 registrants with 21 papers presented, with time at the end of the second session for questions and discussion topics. Outlined below are the papers presented:

Gonococcal Surveillance. Mike Brokenshire, Starship Auckland. A surveillance programme looking at specimens from the 4 main sexual health clinics in Auckland, processing 30,000 patients annually. The results showed the NZ trend over an 18 year period, which has proved to be consistent with international trends. Also described was the WHO Gonococcal Antimicrobial Surveillance Program which monitors antimicrobial resistance patterns on an international scale. The aim of this data gathering is so an effective treatment regime at global, national or regional levels can be implemented.

Immigration checks for parasites. Myra Humphrey, Auckland Hospital. Refugees entering New Zealand have three stool samples examined for ova cysts and parasites, the stools are cultured for enteric pathogens, and there urine samples are examined for bilharzia. 1256 stools were examined on non-symptomatic refugees, 3.4% were positive for parasites. Comparison with randomly selected groups showed similar positivity rates, and post treatment 40% were still positive for parasites. Myra raised the topic “To test or not to test” and queried blanket treatment.


Faggots & Peas, Roast beef & Yorkshire Pudding. Roberta Henton, Waikato Hospital. Interesting title! Roberta gave a comprehensive report on BSE, the clinical histories of recent cases in the UK and she described the debates in the medical literature. She also went into the epidemiology of Kuru, Scrapie BSE and CJD. Supertron Trial. Katherine Snow, Diagnostic Auckland. The object of the trial was to compare the Supertron with the Miditron. 500 urine samples were put through both machines to compare and evaluate the results, efficiency and ease of learning. The results were presented.

Incidence of Antibiotic Resistance in gram negative bacilli from septicaemia and urinary isolates. Susan Maher, Rotorua Diagnostic. Susan was involved in this trial while working in London and she presented some of the findings. The study involved 30 hospital laboratories from 21 different countries, each submitting 200 non-copy isolates which had identification and susceptibility testing performed. The differing susceptibility patterns were presented.

Bordetella pertussis culture versus IgA Antibody. Alison Idema, Waikato Hospital. Alison described the symptoms, epidemiology and recent incidences of Bordetella pertussis in New Zealand. She tabulated the differences between culture, IgA and IgG antibody levels in the diagnosis of whooping cough.

The Life and times of “Strongyloides stercoralis”. Jennifer Cassie and Jennifer Ferguson, Starship Auckland. The life cycle and global incidence of Strongyloides was described by Jennifer Cassie and two case reports with hyperinfection syndrome were described by Jennifer Ferguson.

Eosinophilic Meningitis. Anne Benny, North Shore Hospital. A case report of a Samoan woman who hadn’t been out of New Zealand since 1970 presenting with a headache. The CSF had a high white count with 40% eosinophils. The clinicians said this was due to her ethnic origins, T5 or a virus! The microbiology laboratory diagnosed it as a case of eosinophilic meningitis due to “Angiostrongylus cantonensis”.

Norwegian Scabies. Nei Wood, MedLab Auckland. A case report on a 25-year-old Tongan woman presenting with hyperkeratotic crusts over most of her body. She had large numbers of “Sarcoptes scaber” mites estimated between 5 and 10 million. This differs from ordinary scabies where the number of mites present is usually less than 10.


Legionella. Roslyn Podmore, Canterbury Health. Two recent studies over the last 4 years in Christchurch suggest that Legionellosis is a leading cause of pneumonia. In the hospital acquired pneumonia studies, where an identifiable cause was found, 11% and 13% were attributed to Legionella of varying species. Roslyn also covered the laboratory diagnosis.

South Island Parasitology. Graham Patridge, Canterbury Health. (presented by Janet Wilson.) A case study of a woman who had recently returned from Peru diagnosed with a case of cutaneous myiasis due to “Dermatobia hominis”.

Janet Wilson. Southern Community Laboratories. The second case was of a coughed up adult female Ascaris lumbricoides. The question was asked why are there so few Ascaris ova found in routine O&P examinations compared to adult Ascaris submitted to laboratories for identification?

Hep B or not Hep B. Rubee Yee, Hutt Hospital. A discussion topic.

Nocardia. Michelle Dougherty, Med Lab Hamilton. A case report of two recently isolated cases of Nocardia. The first from a non-healing leg ulcer and the second from an elbow wound. The difficulty of susceptibility testing was discussed plus the identification of Nocardia in a clinical laboratory.

Post operative complications. Delta Smith, Greenlane Hospital. A presentation of the history, life cycle and control of hydatid disease in New Zealand. A recent case report of a patient who underwent an aortic repair but after 2 weeks of complications had a laparotomy which showed 15-20 nydadi cysts. Microscopy on the tissue from theatre showed Echinococcus scoleces.
Blood Grouping:
- CSL New Zealand Reagent Red Blood Cells
- CSL Blood Grouping Reagents
- Ortho Blood Grouping Reagents
- Ortho Reagent Red Blood Cells
- Ortho BioVue C.A.T. Blood Bank System

Hemostasis:
- Hemoliance Hemosasis from MLA & Ortho
- Ortho Reagents for PT, APTT, Fibrinogen Controls, Factor Assays & Chromogenics
- MLA Instruments (new 1400 coag analyser)

Infectious Disease Diagnostics:
- CSL QuantiFeron-TB
- Ortho HCV by EIA & RIBA
- Ortho HIV 1/HIV 2
- Ortho HTLV 1 & HBsAg

Medical Research:
- CSL Cell Culture Reagents
- JRH Biosciences Powdered and Serum-Free Media & Supplements
- Oncor Gene Probes & In Situ Hybridization Probes & Reagents

For further information contact:
- Judy Woodard, Technical Product Specialist
- George Bongiovanni, Logistics Management
- Jeanette Bongiovanni, Customer Services

CSL Biosciences
P O Box 102-062
NSMC, Auckland
New Zealand
FreePhone 0800-688-882
FreeFax 0800-688-883

A case report from a patient with a dog bite which grew a CDC group EF4. The laboratory diagnosis was discussed in addition to commenting on the identification and differentiation of other CDC groups.

CO₂ dependent Staph aureus from CF patients. Sharon Wallace, Healthcare Hawkes Bay.

A discussion paper relating to the problem of obtaining reliable sensitivity results on a Staph aureus which was CO₂ dependent.

Erythromycin sensitivities to streptococci. Ruby Yee, Hutt Hospital.

This was a discussion topic asking if other laboratories had difficulty interpreting NCCLS guidelines when reading zone sizes of erythromycin to Streptococci.


The purpose of the ESR surveillance programme was outlined with laboratory methods of serotyping and phage typing being discussed.

The importance of collating the Salmonella data was outlined showing infection trends nationally and globally.

HSIG would like to take this opportunity to farewell Kathryn Schollum and Marilyn Eales from HSIG. Both Marilyn and Kathryn were founding members of HSIG as it evolved from the Haematology Charge Technologist Group. We acknowledge their contribution to the Standardized Nomenclature And Reporting In Haematology handbook and the Blood Cell Morphology Transparency Set. As well as being circulated within New Zealand these haematological guides have been requested by laboratories throughout the Pacific Islands and as far as Med Lab Ghana. Kathryn and Marilyn made significant contributions to the HSIG seminars which are held in Auckland each year and been a considerable force in shaping haematology through their work with AIT and Massey University. Kathryn has retired to a life of leisure and Marilyn is now manager of Laboratory Clinical Support Services at Middlemore Hospital and continuing her work with The Pacific Way.

We would like to remind haematology staff of the excellent Morphology and Malaria Workshops held by the RCPA. Linda Kape of Diagnostic Laboratory and Pip Anderson of Med Lab have just recently returned from a Malaria workshop and are now well versed in the use of Fields Stain for thick and thin films and parasite loading counts which are becoming very much a part of a routine haematology laboratory. The next RCPA Morphology Workshop is the 2nd/3rd August. For further information contact QAP laboratory (612) 845 7038 Sydney.

In the present climate many Haematology departments have been reevaluating workflow with the introduction of computer algorithms to improve efficiency. This is one of the topics for discussion under Proffered Papers at the upcoming NZIMLS Scientific Meeting in August. An outline of the entire programme appears below.

Thursday 29th August Ellerslie Racecourse

0900-1000  Proffered Papers

Chairperson: John Peters

1030-1230  Haemophilia

Chairperson: Kerry Belton

Haemophilia management – Dr E Berry
Blood Products in haemophilia – Dr E Theakston
The role of the haemophilia centre – S Forde, Charge Nurse
Inhibitors a case history – C Bowering, Technologist
Molecular Genetic of haemophilia – Dr N Van de Water
Is it haemophilia – Mr A Day
Haemophilia, a costly business – Dr P Ockelford

1330-1520  Leukaemia

Chairperson: Mark Kilgour

1330-1400  Acute leukaemia

Dr L Teague

1400-1430  Bone Marrow Transplantation

Haematologist

1430-1450  Cell Markers

Jan Nelson, Technologist

1450-1510  Cytochemistry

K Kelly, Technologist

1510-1520  Case history

P Franklin

1600-1710  Lymphoproliferative Malignancies

Chairperson: Bernard Chambers

1600-1630  Multiple Myeloma

Dr H Blacklock

1630-1700  Lymphoproliferative Disorders

Dr R Henderson

1700-1720  Case Histories

J Williams, Technologist

A Bunker, Technologist

Looking forward to seeing you at conference.

Standard of bulk supply media. Anne McCarthy, Starship Auckland.

A fairy story was told at the end of the day! With pretty pictures but an underlying message.

Questions regarding EIA testing for Giardia and Cryptosporidium. Mary Lorne.

Haemophilus influenzae and its isolation from urine samples in pre-pubertal girls.

Jo Matthews

A discussion topic.

The prize for the best presentation was awarded to Della Smith for her talk on Post Operative Complications.
MEDICA PACIFICA LTD

representing

CSL Biosciences
Blood Banking Anti-Sera
Reagent Red Blood Cells
Cell Culture Products

Ortho Diagnostics
BioVue Blood Banking System
Blood Banking Reagents
Reagent Red Blood Cells
HCV (EIA & RIBA)
HIV 1, HIV 2, HTLV I, HBsAg

Hemoliance
Hemostasis from MLA & Ortho
Reagents, Controls & Instrumentation

Trace Scientific
Liquid Stable Reagents
Microprotein, CK-MB, PBG

BioWhittaker
Viral Serology Reagents
Endotoxin Testing (QCL-1000)

Boston Biomedica Inc.
Accurun-1
Multi Marker Control for Blood Virus Testing
Seroconversion, Sensitivity & QC Panel

Oncor Inc.
In Situ Hybridization
Probes, Kits & Reagents

Denley Instruments
Wellwash Plate Washers
Multipoint Inoculator
General Lab Consumables

Boule Diagnostics AB
Phadebact Strep, Pneumococcus,
Monoclonal GC identification system.
Staph Aureus kit now available.

Hybritech Inc.
Urine & Serum HCG Kit, Cai25,
Ostase Bone Alkaline Phosphatase

Labsystems Oy
Finn Pipettes & Finn Disposable Tips
Multiskan, Multiwash & Fluoroskan
Fluorometers, Plate Readers & Washers

MediSense Inc.
MediSense-2/Pen-2
Blood Glucose Monitor
PC Link QC-Link & SensorLink
Patient & Hospital QA Programs

Freephone 0800-106 100 Freefax 0800-688 883
George Bongiovanni Mobile 025-974913
Louise Fitzgerald Mobile 021-633820
PO Box 24-421 Royal Oak Auckland
4th Generation HCV Screening
Combining recombinant HCV antigens cloned from human serum for the detection of antibodies to core, NS3 and NS5 with synthetic peptides for the detection of antibodies to NS4, this assay takes HCV testing the next step forward.

Efficiency
With a total incubation time of 2 hours, this assay gives rapid results compatible with other Murex blood screening products and bloodbank turnaround times.

Confidence in Results
The assay uses both recombinant and synthetic HCV antigens. Recombinant HCV core, NS3 and NS5 are combined into a single fusion protein expressed in the baculovirus system without a carrier protein. Synthetic peptides are used from selected regions of NS4 avoiding those known to be associated with non-specific reactions.

Sample Addition Monitor
Colour coded reagents plus a Sample Addition Monitor which gives a colour change when sample is added reduce potential for error and ensure accuracy of results.

In-built Flexibility
The eight well microplate format combined with the availability of both 96 and 480 test packs provides flexibility for both high and low volume use.

Ordering information
Product code VK47 Murex anti-HCV: (96 tests)
Product code VK48 Murex anti-HCV: (480 tests)

Samples found positive in Murex anti-HCV EIA may be confirmed using the unique Wellcozyme HCV Western blot (product code: VK68). For further information on this confirmation test and the instrumentation and software systems available to support Murex Diagnostics assays, please contact your local Murex Diagnostics' sales office.

Murex Diagnostics Limited, Central Road, Temple Hill, Dartford, Kent DA1 5LR England.
Tel: (0322) 27771 Tlx: Murex G 896113 Fax: (0322) 273288
Transfusion Science
Special Interest Group

Convener: Sheryl Khull,
Transfusion Medicine,
Palmerston North Hospital
Members: Ray Scott, Auckland Regional Blood Centre; Roger Austin, Blood Bank, Taranaki Base Hospital, New Plymouth; Sue Baird, Blood Bank, Lakeland Hospital, Rotorua; Marie Wilson, Blood Bank, Gisborne Hospital; Diane Whitehead, Transfusion Medicine, Christchurch Hospital; Suzanne Williams, Blood Bank, Otago Hospital, Dunedin; Kaye Fissenden, Laboratory, Timaru

You will note from the list above that Sue Baird has moved back to her home town in the deep south. Her place at Rotorua is being filled by Raewyn Clark. This is only one of many changes to Blood Banking people in the last year. Judith Palea’ae has moved from Wanganui to Ashburton — also following the southward migration trend. Would the last one out of the North Island please unplug the power cable!

Continuing Education Opportunity – Clinical Update
With the demise of the Transfusion Medicine Audio Updates we have been looking for a continuing education programme to replace them.

One opportunity which is available is from the University of South Australia. Called “Clinical Update”, this is a series of 22 one-hour lectures on videotape at a cost of AUS$300. The series begins on 2 July, and videotapes are mailed two each week, about a week after each lecture. Subjects covered include: legislative requirements, current best practice, red cell antigens, transfusion in critical care, transfusion ethics, HLA antigens, automation, adverse reactions, platelet transfusion, neonatal transfusion, autologous transfusion and special blood products.

At the end of the course, those who satisfactorily complete written answers to set study questions covering the whole lecture series will receive a certificate of achievement. This is a one-off opportunity, as different disciplines are featured each year.

You can get information about this programme directly from Dr Flower at the School of Pharmacy and Medical Sciences, University of South Australia, North Terrace, Adelaide. Sue Baird is planning to get the course, so perhaps she will be able to tell us a bit more about it later.

Continuing Education Opportunity – Quality and Blood Transfusion
Gerry Heta (North Shore Hospital Blood Bank), Bob Coleman (Auckland Regional Blood Service) and Diane Whitehead (Christchurch Hospital Transfusion Medicine) attended the “Quality and Blood Transfusion” seminar in Melbourne during May. A selection of the presentations are available on computer disc. I believe you need PowerPoint to access the slides, but if you are interested, contact Gerry or Diane for more information. There is no charge for the information, but please cover the cost of the disc itself.

Abbott Users Group Meeting
Report from Bronwyn Kendrick, Donation Accreditation Section, Palmerston North Hospital:

I attended an Abbott User Group Meeting in Auckland on 28 May 1996 for a demonstration of the Total Processing Centre – the latest upgrade of our current Commander system which performs anti-HIV, anti-HCV and Hepatitis B ELISA assays.

The system was demonstrated by David Ackeroyd and Nicole Higgie. It allows total traceability of the operators’ steps throughout the entire assay. All operators have a unique barcoded identification card which is input at each step. Every reagent is entered into the computer system upon arrival of a new batch of kits. No errors can then occur with the use of a wrong reagent because of the computer barcode checking. This will also alert the operator to an expired reagent. All reagents have barcoded positions to prevent incorrectly positioned reagents. Incubation times are monitored by a computer link-up to the dynamic incubators – any time over the allowed time limit will void the assay in progress.

This system should be foolproof and will comply with GMP expectations. Human operator error should no longer occur.

A general discussion followed to allow the interchange of problem solving for all Abbott users. Some subjects discussed were:

- Water contamination problems are nationwide and have been resolved by autoclaving water supplies. A new machine enzyme detergent available now in New Zealand was discussed.
- Intermittent contamination of some assay wells was resolved by a participant who suggested wiping the tray tops prior to OPD addition.

- Hepatitis C lookback talk by Andrew Mills from Waikato

- Declining HCV positive control values, due to contaminated conjugate dispenser. Washing with acid resolved this problem.

Out of hours service report.

Commander PPC and FPC reliability data June 95 to May 96 and the mean time between service calls.

Thank you to Abbott for arranging and funding this useful meeting.
As you can see, we now have our own logo, thanks to Bill Croasdale from Hutt Hospital.

By now registrations for the 1996 H SIG seminar in Christchurch should have been completed. Any inquiries to Robyn George at Christchurch Hospital, please.

The seminar on Saturday the 5th of October promises to be well worthwhile with a number of papers to be presented.

Please also consider any items concerning H SIG matters for discussion, for the business part of the program, and let me know these prior to the meeting. My fax number is 06 753 7713, or phone 06 753 7764.

See you in Christchurch!
In order to get the most out of your working holiday in Britain, you’ll want the expert care you can only gain from Corinth. With almost thirty years experience we’ve grown to be the leading specialist Employment Agency in our field by helping Medical Laboratory Scientists from all over the world combine business with pleasure; giving them the opportunity to work with the UK’s leading hospitals and helping them take time out to enjoy the different cultures and sights. What’s more, as well as top rates of pay and an excellent package of benefits, you won’t be tied to any binding contracts and you won’t be charged for our services.
We’ll simply offer you the widest selection of jobs and supply friendly and confidential advice on all aspects of working through an agency.

Want us to put you in the picture?
If so, complete the coupon below and send it to our Recruitment Manager, Kate Williams ABMS and she will send you our FREE ‘Working Holidays in Britain’ Information Pack. Alternatively, you can Call Us Toll-Free on 0800 441 586 (24 hours).

I’d like to know more about Corinth Medical.
Please send me your ‘Working Holidays in Britain’ brochure.

Name ________________________________
Address ____________________________________
Tel: _____________________________________

Anticipated date of travel: _______ Month _______ Year

Post to: Corinth Medical, 5 Theobald Court, Theobald Street
Borehamwood, Hertfordshire WD6 4RN, ENGLAND
Tel: 00 44 1 207 0234 Fax: 00 44 1 207 6894
At Queensland University of Technology, we offer direct entry into our masters programs for medical scientists who are registered with the New Zealand medical laboratory scientists registration board. So, if you’re looking to upgrade your qualifications and enhance your career, QUT is the ideal place to start.

**Faculty of Science Postgraduate Courses**

The faculty offers a range of postgraduate research and coursework programs in medical science.

PhD and research masters include specialisations in:

- chlamydia diagnosis and control
- protein based diagnostics
- arbovirus pathogenesis program
- DNA based diagnosis
- molecular endocrinology of cancer.

A coursework masters degree in medical science is available through the Master of Life Science.

We also offer a Graduate Diploma in Biotechnology.

**QUT’s Postgraduate Package**

- world-class research laboratories and centres like the Cooperative Research Centre for Diagnostic Technologies which support postgraduate courses and research programs
- research programs that can be commenced in Australia and completed in New Zealand
- expert staff, many of them practising professionals and leading researchers
- coursework masters which can be completed in three semesters or one calendar year
- flexible study programs designed to meet the demands of your busy lifestyle

For more information, phone +61 7 3864 2917, fax +61 7 3864 1534 or email j.vidgen@qut.edu.au

A university for the real world

Queensland University of Technology GPO Box 2434 Brisbane Australia 4001 World Wide Web Site: http://www.qut.edu.au/
New Products and Services

New from Biohit
Biohit Proline XL – Macro Electronic Pipettor

Designed for easy, safe and precise handling of volumes from 0.1 to 25.0 ml. Four modes allowing for exact pipetting, multiple and sequential dispensing. For optimal performance the speed of aspiration and dispensing can be programmed separately to suit different liquids. Compatible with graduated glass and plastic pipettes by changing an adaptor the Biohit Proline XL is multifunctional and visual control of pipetting is no longer necessary.

For safety reasons, Proline XL has a filter that prevents over-aspiration, in addition the XL can be programmed to operate in a specific range only. This unit is fully rechargeable.

For more information contact Biohit, phone (09) 527-6413 or Fax (09) 570-9670.

NZ Medical Laboratory Science Trust
JC Mann, Honorary Executive Officer

As you no doubt are aware, the Palmerston North Hospital Pathology department has now been "Privatised" which means we can no longer use that address for mail coming to Colvin or myself on Trust Board business.

Accordingly, the address for this will have to be:
c/- C.H. Campbell
282 Railway Road
R.D. 10
PALMERSTON NORTH

Quality Award goes to Healthcare

Greater demands for efficiency have given impetus to the introduction of Quality Improvement concepts into a number of Healthcare organisations. As a result, at the New Zealand Organisation for Quality Conference recently, recognition was given to Maureen Whineray for her work in researching ways to reduce the number of patients not turning up for appointments in a large hospital's Outpatients Clinics, as part of her Post Graduate Diploma in Quality Assurance.

Missed appointments are a major problem because they are a social and financial cost. Failure rates have been reported as high as fifty-two percent. The research led to trialling interventions to reduce missed appointments and approaches taken to get staff to recognise there was a problem, to guide them towards taking ownership, and solving it.

The findings were presented at the 1995 NZOQ Conference, published in 'Quality New Zealand' and requested for publication in the Australasian Association for Quality in Healthcare Newsletter.

The 1996 Carter Holt Harvey Quality Award was given to Mrs Whineray for the project mentioned. The award is for the best practical paper demonstrating successful quality improvement interventions published in the New Zealand Organisation for Quality publications in the previous 12 months.

Maureen Whineray has worked, most recently, as Quality Manager for the Mercy Hospital, Auckland, and prior to that, as Quality Manager for Wairarapa Health based at the Masterton Hospital. As part of her role she has facilitated into these organisations, Quality Improvement Programmes with the focus on Customer Service, using consultation and training to convert quality 'words' in action, and to help bring about significant behavioural and operational change.

Maureen is now an independent Quality Action Adviser in Healthcare, and will be facilitating KiwiHost in the Health Environment later this year. KiwiHost in the Health Environment is a customer service training course customised to the Health Professional's experience. Maureen describes this one-day course as "the first step in the Quality Improvement process" for any healthcare provider. She is also a course leader for New Zealand Organisation for Quality's 'Introduction to Quality in Health Care', a practical, 'How to' course which offers understanding and skills to make Quality Action a reality.

KiwiHost has been the customer service training course used by a number of health providers over the past few years, including, most recently, the Dunedin CHE, Otago RHA, Christchurch, Nelson and Hutt Valley Health.

Maureen Whineray can be contacted by phoning KiwiHost on (09) 412 8486, or (09) 479 4432.

This press release has been provided by KiwiHost – Kay Bazzard, 74 Awa Road, RD 1, KUMEU, and enquiries should be directed to either of the two telephone numbers above.

New from bioMérieux
VIDAS Stallertest

VIDAS Stallertest is the latest addition to the VIDAS test range. VIDAS Stallertest is an automated test for screening of respiratory allergies. The test is fully automated, using either the VIDAS or miniVIDAS and is complete in 90 minutes. VIDAS Stallertest is for the detection of human IgE, specific to a defined mixture of allergens (the SPR is coated with 10 common inhalant allergens), in serum or plasma. It is suitable for one-off patient testing.

For more information, please contact Med-Bio Enterprises Ltd.
Med-Bio Enterprises Ltd
Phone 03 349 4950, Toll Free 0800 733 599

New from bioMérieux
Albicans ID

For immediate isolation and identification of C.albicans, try Albicans ID media. Albicans ID is ready-to-use plated media, which enables isolation of yeasts and immediate identification of Candida albicans (70 to 80% of the isolated yeasts of superficial samples are C.albicans). C.albicans are coloured blue due to a specific hexosaminidase chromogenic substrate incorporated in the medium. Other yeasts give white colonies.

With a sensitivity of 97% and a specificity of 99%, Albicans ID shows superior performance compared to classical identification tests for C.albicans. Furthermore, Albicans ID shows very clearly the presence of multiple yeasts in the same sample.

Inhibition of bacterial flora is achieved by combining two antibiotics (Gentamicin and Chloramphenicol) within the medium. This medium is becoming very popular. For more information, please contact us.

Med-Bio Enterprises Ltd.
Phone 03 349 4950, Toll Free 0800 733 599

Automation in Microbiology

Announcing a new web site "Turbidimetric Microbiology Readers" at http://www.bookmark.fi/microbiology/.

Labystems microbiology reader Bioscreen measures the development of turbidity of 200 microbiology samples kinetically and draws the turbidity development graph (growth curves) on a PC screen. Any bacteria, yeast, phage or cell at aerobic or anaerobic environment can be dropped in Bioscreen wells for growth monitoring. Automated sterile dispensing is possible, as well as incubation at 1-60 degrees C and shaking. The site includes technical pictures, microbiology software, an overview of kinetical monitoring of growth, colour growth curve gallery and a list of scientific publications. Bioscreen is useful at all microbiology areas: food-, pharmaceutical-, agricultural-, soil-, water-, environmental-, veterinary-, assay-, and research microbiology. The range of tests is virtually endless - most of test tubes experiments using broth can be run automatically by Bioscreen reader and by multilwell plates.

If you like to get a hard copy of this site or further information on the Labsystems range of Plate Readers or Finnpipettes, please contact Medica Pacifica Ltd on 09-6255261 or fax 09-6254396.
The Australian Journal of Medical Science publishes papers in the fields of blood banking, clinical biochemistry, haematology, histopathology, immunology and microbiology as well as related areas of interest to medical laboratory scientists such as epidemiology, public and community health and toxicology.

Papers submitted to the Journal are in the form of:

- Review Articles
- Original Articles
- Brief Communications
- Case Studies
- Technical Notes

The Journal is circulated to members and organisations throughout Australia and overseas and is distributed by Medline, Chemical Abstracts and Excerpta Medica.

Results of original research and review articles are an invaluable source of information for scientists.

The Journal is published quarterly in February, May, August and November and annual subscriptions are for a calendar year.

The Journal is an official publication of the Australian Institute of Medical Scientists.

RECENT PAPERS INCLUDE:

Review Articles
- Health, an indigenous right: a review of Aboriginal health in Australia
  P. Miller and P. Torzillo
- The laboratory diagnosis of human prion disease
  P. Fayk
- Antilymphocyte antibodies – therapeutic aspects
  M. Chooi and D. Heathcote
- Alternative procedures for reducing blood and blood component usage
  C. Healy

Original Articles
- A comparison of WHO and Tygerberg strict criteria for assessing human spermatozoal morphology
  D. Bernstein, J.P.P. Tyler, G.L. Driscoll
- Use of SDS–Polyacrylamide–gelatin gels to detect SDS stable proteinases of feline strains within the genus Porphyromonas
  D.N. Love, M. Binas
- Assessment of the available techniques for analysis of P-glycoprotein mediated multidrug resistance
  C.M. Trambas and G.M. Woods

Brief Communication
- Enzyme amplification of ELISA
  R. Markham, L. Young and I.S. Fraser

Case Study
- Cryptosporidiosis in Tasmania
  T. Hawesford and J.M. Goldsmith

SUBSCRIBE NOW!

ORDER FORM

I wish to subscribe to the Australian Journal of Medical Science.

Subscription: AUS$65.00

Name ______________________________________

Address ______________________________________

______________________________________________

______________________________________________

______________________________________________

______________________________________________

Date ________________________

Please make cheque payable to: Australian Journal of Medical Science.

Credit card payment: Visa / Bankcard / Mastercard (Delete as appropriate)

Card number

__________________________

Expire date ____________

Signature __________

Send orders to:
Australian Journal of Medical Science, P.O. Box 450, Toowong Qld 4066, Australia.
Ph. (07) 3371 3370, Fax. (07) 3870 4857.
Publications in Overseas Medical Laboratory Science Journals

We exchange journals with various overseas medical laboratory science organisations. Members wishing to obtain articles of interest should forward their requests to the Editor, NZ J Med Lab Science, c/-Dept. of Medicine, Wellington School of Medicine, PO Box 7343, Wellington South.


SCIANZ CORPORATION ANNOUNCES
RELEASE OF NEW ACS PSA2 ASSAY

SCIANZ Corporation Limited is pleased to announce the world-wide release of the ACS PSA2 immunoassay for prostate specific antigen. This new assay expands the menu of assays on the ACS:180 system, and provides you with new opportunities to consolidate oncology testing. The ACS PSA2 assay complements our growing menu of oncology assays which may include ACS CEA, AFP, PSA and BR.

The ACS PSA2 assay was developed by Ciba Corning Diagnostics to meet the changing demands of the world-wide market for PSA testing. These demands have focused on assay standardization to produce better agreement between different PSA methods. ACS PSA2 has been calibrated for alignment with the proposed international reference standard for PSA, and adjusted to achieve clinical concordance with reference PSA methods. This facilitates inter-laboratory comparisons of patient PSA results.

For further information please phone our Technical Assistance Centre (TAC) on 0800 SCIANZ (0800 724 269).

---

THE NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE (INC.)

Title NZIMLS Scientific Meeting Trades Display Award
Donor NZ Institute of Medical Laboratory Science (Inc.)
Nature An engraved plaque will be presented annually to the firm which has the most outstanding display in the trades display area, together with two pages of free advertising in the NZIMLS Journal. (Copy to be provided by the winning firm). Preparation costs to be met by winner.
Eligibility All firms or companies who have a display stand in the trades display area of the Annual NZIMLS Scientific Meeting.
Judging Judges of this award shall be the Trades Display Convenor and the Awards Convenor. The winner will be announced at the end of the first session of the Scientific Meeting.
WHITE CELL ANALYSIS
- Five-dimensional cell-by-cell analysis
- Expanded reportable range from 0 to 250,000 cells/μL
- Indication of white blood cell viability

DIFFERENTIAL ANALYSIS
- Increased sensitivity of abnormal cell detection
- Fluorescent DNA staining of nucleated red blood cells
- Reportable differential up to 36 hours post-draw

RETICULOCYTE ANALYSIS
- Fully automated random access measurement
- Rapid patented fluorescent RNA staining
- Sensitivity applicable for critical therapy monitoring

RED CELL ANALYSIS
- Focused flow impedance with optical validation
- Hemoglobin free of interference from leukocytosis
- Complete red blood cell lineage analysis, including mature red blood cells, reticulocytes and nucleated red blood cells

PLATELET ANALYSIS
- Optical scatter and focused flow impedance
- Autoverification of results at critical decision points
- Expanded reportable range from 0 to 2 million cells/μL

ABBOTT Diagnostics Division
146A Harris Road, East Tamaki, Auckland, P.O. Box 58-611, Greenmount, Auckland, New Zealand
Tel: 09 274 9886, Fax: 09 274 6633, Toll free: 0800 656 233
Light-years ahead

Elecsys