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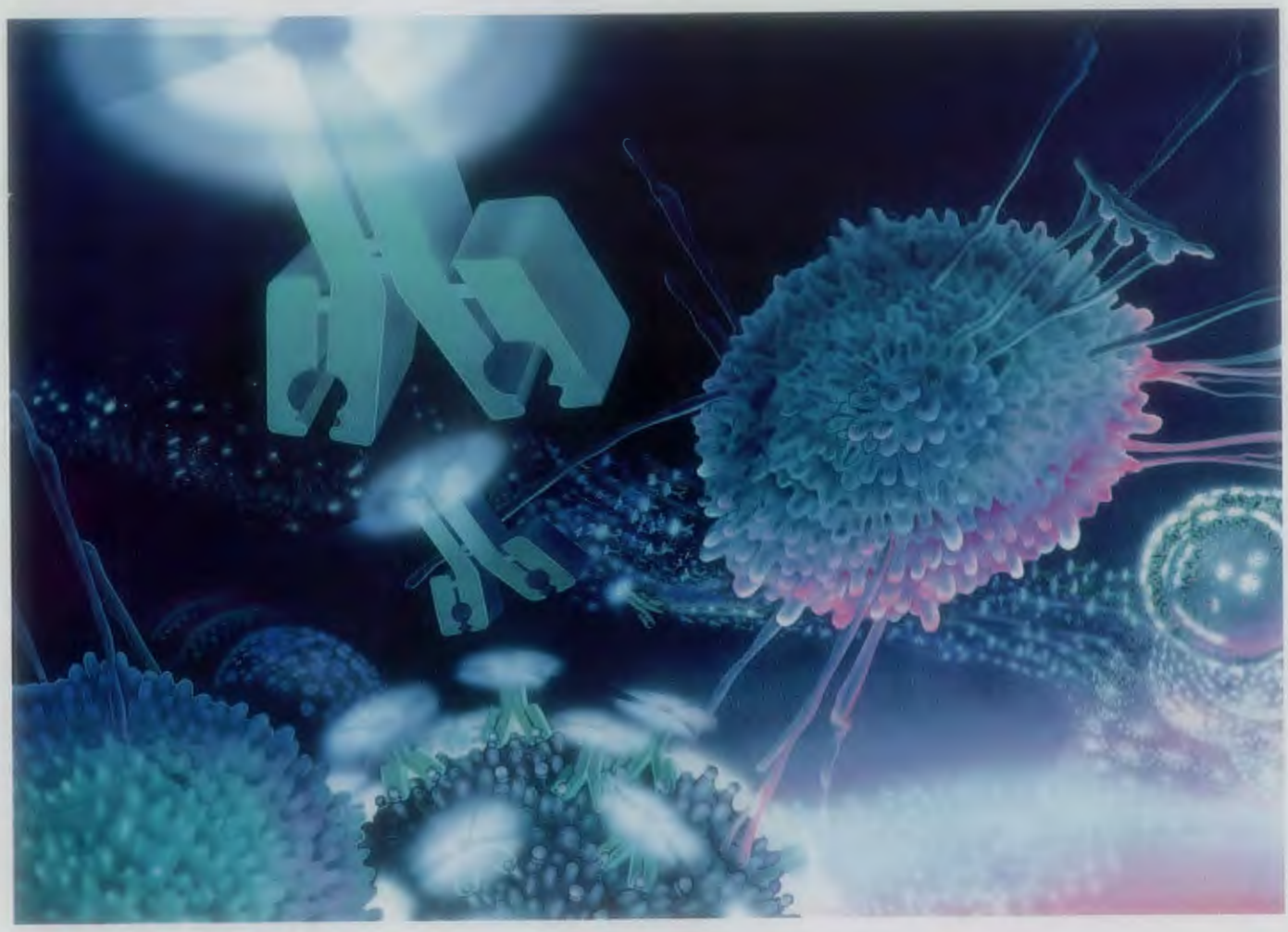

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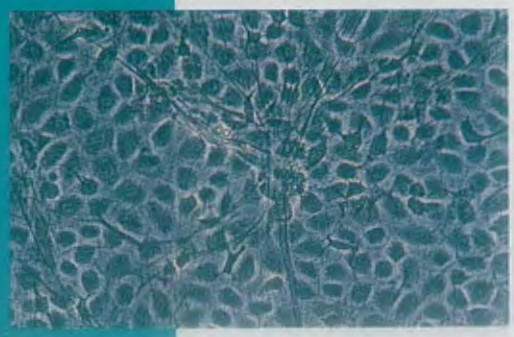

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DIRECTIONS FOR CONTRIBUTORS

From Vol. 36 No. 1 all papers published will be in the form known as "Vancouver Style" or Uniform Requirements for Manuscripts submitted to Biomedical Journals. Full details may be found in the New Zealand Journal of Medical Laboratory Science, Vol. 45, No. 4, page 108 to 111 or from the Editor.

Intending contributors should submit their material to the Editor, M. Gillies, Microbiology Laboratory, Auckland Hospital, Auckland, New Zealand. Acceptance is at the discretion of the Editor, and no undertaking is given that any article will be published in a particular issue. The copy deadline for each issue is the first of the month prior to the month of publication.

ADVERTISER INQUIRIES

Inquiries regarding advertising rates and copy or blocks for advertising should be addressed to the Advertising Manager, Trish Reilly, M.N.Z.I.M.L.S., 48 Towai St, St Heliers, Auckland 5, Phone 575 5057

DATES OF PUBLICATION

The months of publication for 1992 are March, May, August and November.

An evaluation of the Microring YT Yeast Identification System

Shirley A. Gainsford MNZIMLS Dip Bus Studies, Alan Woodgyer* COP(Bact) BSc(Hons), Gwenda Young MNZIMLS

Valley Diagnostic Laboratory, P.O. Box 30044, Lower Hutt and New Zealand Communicable Disease Centre*, P.O. Box 50348, Porirua.

Contact for correspondence: Alan Woodgyer.

Abstract

When compared to conventional methods of yeast identification, the Microring YT identified 70% of yeast isolates. There was complete agreement between the two systems for *Candida albicans, C. parapsilosis, C. famata, C. tropicalis* and *C. glabrata*. However the results for a number of other medically important yeast species were less satisfactory. The Microring YT yeast identification system in its present form cannot be recommended for the routine identification of clinical yeast isolates.

Introduction

There is an increasing awareness that yeasts are responsible for an appreciable number of opportunistic infections in compromised patients. Also there is a growing awareness that a number of yeasts apart from *Candida albicans* and *Cryptococcus neoformans* are responsible for such infections. Eight *Candida* species are recognised as pathogens and these are *C. albicans, C. tropicalis, C. glabrata, C. parapsilosis, C. kefyr* (formerly *C. pseudotropicalis*), *C. krusei, C. guilliermondii* and *C. viswanathii*. Other yeasts which are isolated less frequently from clinical specimens, but which are considered to be potential human pathogens, include *C. catenulata, C. famata, C. inconspicua, C. intermedia, C. lusitaniae, C. norvegensis, C. rugosa, C. zeylanoides, Cr. albidus, Cr. laurentii, Rhodotorula glutinis, Rh. rubra* and *Saccharomyces cerevisiae* (1). In the recent literature, the two yeasts, *Trichosporon cutaneum* (syn *T. biegelii*) and *Malassezia furfur*, which are characteristically associated with the superficial infections, white piedra and pityriasis versicolor respectively, have been shown to cause rare systemic infections in patients at risk (2,3).

As a consequence of this increased awareness and interest in yeast infections, there has been a proliferation of kits for yeast identification. These have been based on either the assimilation of carbohydrates (API 20C, Uni-Yeast-Tek, Vitek Yeast Biochem Card, ATB 32C, Abbott Quantum ii etc) or on enzyme based reactions (API Yeast-Ident, Baxter-Micro-Scan etc). A number of publications have appeared in the recent literature documenting the efficacy of a number of these systems (4,5,6,7,8) and it is interesting to note that each has been compared with the API 20C system as the standard reference system.

It is a measure of the success of the API 20C that it should be regarded as equivalent to conventional yeast identification methods in terms of a reference standard.

In 1985, Sobczak (9) published a method of yeast identification based on the different susceptibilities of the various species to six dyes/antifungal agents; Janus green, ethidium bromide, triphenyl tetrazolium chloride, brilliant green, cycloheximide and rhodamine 6G. Within a short space of time the Microring YT system (Medical Wire & Equipment Co Ltd., Corsham, United Kingdom), which was based on Sobczak's work, appeared on the market. The present study set out to investigate the accuracy of the Microring YT system when compared with conventional methods of yeast identification.

Materials and Methods

Yeasts.

A total of 74 isolates comprising 53 fresh clinical isolates from Valley Diagnostic Laboratory (VDL) and 21 isolates from the collection held by the Mycology Reference Laboratory (NZCDC) were used in the investigation.

Conventional tests (NZCDC).

The Dalmau plate technique using Rice Extract agar (Difco) plus Tween 80 was used to study the micromorphology of each isolate. Carbohydrate assimilations/fermentations, nitrate assimilation, urease activity and growth at 30/37°C were carried out as detailed in the monograph edited by Kreger-van Rij (10). The germ tube test was also performed when appropriate.

Microring YT yeast identification system (VDL).

The yeasts were grown on Sabouraud Dextrose agar (Oxoid CM41) at 30°C for 24-48 hours. Suspensions of each isolate were made in sterile distilled water to a density equivalent to No. 1-2 McFarland Standard. These were spread over the surface of a Sabouraud dextrose agar (Oxoid CM41) plate with a swab. The plates were allowed to dry and a Microring was placed in the centre of the plate and pressed down gently to ensure good surface contact. The plates were incubated at 37°C for 18-24 hours. Where insufficient growth occurred in this time, the plates were reincubated for a further 24 hours. The plates were then examined for zones of inhibition around each of the Microring tips, with any zone, no matter how small, being scored as susceptible. The results were noted in sequence from 1-6 for each of the tips to produce a six digit code. If no zone of inhibition was noted the score for the tip was zero. If a zone of inhibition was present this was scored as the number of that particular tip. Regrowth within inhibition zones was also noted and scored with the number of the tip with the suffix R. The identification of the yeasts was made by comparing the codes, presence of regrowth and the colour around tip No. 3, with the tabulated results for each of the species supplied by the kit manufacturers. A Rice-Extract Tween 80 plate was also inoculated to study the micromorphology of each of the isolates.

Results

The results of the comparative study are summarised in Table 1. Seventy percent of the yeasts were correctly identified by the Microring. There was complete agreement between the two identification systems for *C. albicans, C. parapsilosis, C. glabrata, C. tropicalis* and *C. famata*. However for the remaining eight species, the accuracy of the Microring was less satisfactory. The Microring identified 50% of the strains of *C. krusei* (2/4) and *C. lusitaniae* (2/4), 40% of *Cr. neoformans* (2/5) and only 33% of the *C. guilliermondii* (3/9) isolates. The Microring failed to identify two isolates of *S. cerevisiae* and one isolate of *Cr. albidus*. Six isolates of *T. cutaneum* could not be identified as there is no code for this organism in the data base.

Discussion

After 48 hours incubation the two cryptococci, *Cr. neoformans* and *Cr. albidus*, showed very poor growth and it was very difficult to determine if zones were present around some of the tips. The Microring did not distinguish between the two varieties of *Cr. neoformans*. Those isolates of *C. guilliermondii* and *C. lusitaniae* which were misidentified, consistently gave no zone of inhibition with the Janus green and were thus identified as *C. famata*. For some species, different isolates gave dissimilar codes, none of which

Table 1. *Accuracy of the identification of common clinical yeast isolates by Microring YT compared with the conventional yeast identification.*

Yeast	Number correct/ number tested	% correlation with conventional identification system
C. albicans	19/19	100
C. glabrata	6/6	100
C. famata	1/1	100
C. guilliermondii	3/9	33
C. krusei	2/4	50
C. luisitaniae	2/4	50
C. parapsilosis	13/13	100
C. tropicalis	4/4	100
Cr. albidus	0/1	0
Cr.neoformans	2/5	40
S. cerevisiae	0/2	0
T. cutaneum	0/6	0*

* *No code in the database for this yeast.*

corresponded to the listed codes, and this was not due to any consistent error(s) for any disc(s) but involved a number of discs. In such cases there was only a partial resemblance between the generated codes and those listed. On occasions we obtained codes which bore no resemblance to any of those listed. The system showed poor reproducibility in that when a small number of isolates were retested, only 73% of these gave the same six digit code.

Whilst the present study was being undertaken, two reports on the Microring YT were published. Each of these reports were from the United Kingdom and one was a multicentre evaluation of the kit. The first of these reports, that of Shankland et al (11), reported that only 52.8% of yeasts tested were correctly identified. The publication by Ridgway and Allen (12) reported that 72.6% of identifications agreed with the reference system used and this finding is very similar to that of the present study in which 70% of yeasts were correctly identified by the Microring YT. In most respects there is good agreement between our results and the two reported studies. Each shows that Microring YT readily identifies *C. albicans* and most strains of *C. glabrata* and *C. famata*. The results for *C. guilliermondii* for each of the three studies show good agreement. In the case of *C. parapsilosis* there is some divergence between our study and those of the English investigators. Our results indicate that this species is one of the easier ones to identify using the Microring whereas both of the English reports found it to be one of the more difficult. The reasons for this disparity are not immediately obvious.

The information sheet accompanying the kits states that in those situations where a code corresponds to more than one species, the organisms may be differentiated by a number of different tests including "microscopy". Presumably this refers to the use of a Dalmau morphology plate although this is not specifically stated. The morphology of the yeasts on Rice Extract Tween 80 agar was especially helpful in distinguishing between two species when a code corresponded to more than one species. For example, where isolates of *C. guilliermondii* were misidentified as *C. famata*, the micromorphology on Rice Extract Tween 80 agar readily distinguished between the two as the former species produced pseudomycelium on this medium. The importance of the micromorphology of the yeasts should not be underestimated when using any of the yeast identification systems presently available. Recent publications stress the importance of micromorphology in the identification of yeast isolates (4,6,8) as do a number of the kit manufacturers.

The Microring YT is easy to set up and is competitively priced at only $1.75 per identification. However the interpretation of the results is fraught with problems. Further, the data base is limited in that it contains codes for only 18 species. It is surprising that organisms such as *T. cutaneum* have been omitted from the data base. We would agree with Shankland et al (11) that even if the data base were to be considerably expanded, the inherent problems of inaccuracy and poor reproducibility of the system impose major limitations on the usefulness of Microring YT for the identification of clinical yeast isolates.

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LATEST FELLOWSHIP RECIPIENT

Profile of Glenne Findon, Grade Laboratory Officer, Department of Medicine, Auckland Hospital

In 1967, I had to give a talk to my 7th form biology class on bacteria. I wandered down to the local laboratory (Alexander & McCafferty) and asked for some information on my chosen subject. I was given a quick tour of the Microbiology laboratory and several plates and broths to use as part of my lecture. What I said I can't remember, but my mark was 98% and I had found my future career.

A year later I started my working life as a trainee technologist at Wellington Hospital. In 1972, I obtained a C.O.P. in Microbiology ("O" and "A" level) and also the J. Mercer prize for the highest qualifying technologist in my year. In February 1973, I took up a position in charge of the Microbiology Department at Whakatane Hospital Laboratory. By 1982, I was ready for a change so I moved to Auckland where I was offered three jobs (times have sure changed!!). The one I chose proved to be the best and the start of my Fellowship submission, entitled "The Pathobiology of Urinary Tract and Related Infections".

I was employed by Dr Thomas Miller in the Department of Medicine at Auckland Hospital. Dr Miller, once a laboratory technologist and Fellow of the Institute himself, was involved in a research project on the pathobiology of infectious disease. My involvement became largely focused on renal and related infections. This was mainly microbiological, involving the use of animal models of pyelonephritis to assess the role of cellular components of the immune system in the development and containment of renal infection. By depleting the host of specific cells using various agents, the effect of these cells on the infection could be investigated. This work led me to publish eight papers in well known overseas medical journals. Another publication discussed the diagnostic value of ureteric catheterisation in pyelonephritis using an animal model. The results showed that valuable information can be obtained from the analysis of these samples but the pathologic status of the kidney is difficult to assess from an analysis of the bacteriologic and cytologic constituents alone. We have also shown in another publication that the peripheral blood leucocyte count can be used as an index of defence status in the leucopenic host. These findings support the use of this parameter as an indicator of resistance to infection.

The use of cyclosporin A (CsA) to modify the T helper cells in the host led to a further six papers. An unexpected finding was that CsA exacerbated infections involving extracellular microorganisms which are normally not altered by cell-mediated (T cell) immune mechanisms. *E. coli* pyelonephritis was grossly exacerbated and led to several years of experimentation to explain this previously unknown side effect. Our group has recently found that CsA affects the mobilisation of neutrophils to an inflammatory focus, leading to a rapid increase in bacterial numbers in the infected organ.

Another three publications evolved from work performed in relation to the use of fusidic acid in the treatment of CAPD-induced peritonitis. A model of continuous ambulatory peritoneal dialysis (CAPD) was developed in the rat and the pharmacokinetics of fusidic acid in laboratory animals was established. It was then found that fusidic acid could be used, in principle, to treat CAPD-related peritonitis caused by *S. epidermidis* as fusidic acid was found in the spent dialysate at levels far in excess of the MIC for this antibiotic.

Laboratory animal health has also been my responsibility during the last 10 years. It is important when using animal models of infection that the subjects are as healthy as possible. The discovery of a bladder worm in our colony of rats could have compromised the results of our investigations of the urinary tract. We tried successfully a new anthelminthic and effectively eradicated the worm from the bladder in three days. These results were published in two animal health journals.

I have enjoyed the challenge of the last 10 years and the help given to me by Dr Miller and his team. It is gratifying to see that my contribution to these studies has been recognised by the Fellowship Committee. I am pleased to receive the Fellowship from the Institute and thank those involved for granting it to me.

Glenne Findon

BOOK REVIEW

"Microbiology" 2nd Edition 1990 ISBN 0-471-61662-1

Authors: David T Kingsbury, Gerald E Wagner

The National Medical Series for Independent Study.
Publisher: Williams & Wilkins
Price: Approximately $NZ48.

Reviewed by Graham Thorne
Microbiology Co-ordinator, Auckland Hospital.

This textbook is composed of 31 chapters and 436 pages of excellent microbiological information. The content of the chapters range through bacterial structure, bacterial physiology/genetics, antimicrobial agents, basic/clinical immunology, bacterial groups, fungi, viruses, protozoa/helminths, common infections and an extensive multi-choice question series.

The text is presented in a heading and short summary form. This permits the reader to quickly cover the very large topics. Although written in this summary form each chapter provides adequate, correct and up to date information on the topic.

An impressive attribute of this textbook is the question series at the end of each chapter and the 150 questions in the last chapter. Unlike many other textbooks which only provide the correct response this textbook has the advantage of supplying a short statement of the reason for that selection.

The textbook lacks a reference section at the end of each chapter. However, it is not presented as a complete textbook on the subjects but as a very useful learning tool.

This textbook would be a good investment for any student preparing for an examination and on a department bookshelf as a useful study guide.

AUGUST 1992

NZIMLS CONTINUING EDUCATION

SPECIAL INTEREST GROUPS

Liftout

TRANSFUSION SCIENCE

SPECIAL INTEREST GROUP

Convenor: David Wilson.
Contact Address: Manawatu Regional Blood Centre, Palmerston North Hospital, Private Bag, Palmerston North.

The last meeting of the Transfusion Science Special Interest Group was held in conjunction with the NICE Weekend at Wairakei on 26 April, 1992.

FINANCES

David Wilson presented the financial reports of the TSSIG for the last financial year ended 31 March, 1992, and for the current year to date, to 22 April, 1992. We are not a profit-making group, and don't have much in the bank, but we do want to make sure that we spend our resources and efforts on what you most want, so make sure you contact one of the TSSIG members with any requests or ideas you would like considered.

AUDIO UPDATES

As previously mentioned, this is a continuing education programme presented on audio tape. The U.S. distributor has the following to say about his product:

"This is a comprehensive and unique program which is designed to keep blood bank professionals up to date in the field and also serves as a vehicle for staff education. The program is medically and technically oriented. The user has access to timely and critical information which improves the user's ability to provide better clinical care and to be better aware of new developments and changes."

The TSSIG has puchased a subscription and we now have available the following topics:

Solid Phase Immunohaematologic Testing for Red Cells & Platelets.
Monoclonal Reagents — What Should We Expect From Them?
Total Quality Improvement — A Lifetime Goal
An Update on Hepatitis C — speaker: Dr Jay Menitove

They are available at a cost of:

$6.00 for the tape and a complete written transcript.
$4.00 for the tape only.
$3.50 for the transcript only.

We should be receiving further issues at the rate of about one per month. I will keep you informed of the topics of future issues as they become available. You can order your copy of any or all of the currently available topics, or even pre-order future issues without knowing what topics they will cover if you find this more convenient. Send your orders to:

Sheryl Khull, Secretary TSSIG, Transfusion Laboratory, Wellington Regional Blood Service, Wellington Hospital, Private Bag, Wellington 6002.

STAR

We have obtained the first issue of the AABB programme 'STAR' (Self Test and Review). We think this would be best made available via an interactive computer programme for use on IBM-compatible PCs. We are working on this. If anyone would like to help or offer reasonably priced alternatives, please contact Sherryl Khull at the above address.

N.I.C.E. V.I.S.I.T.

All NIPS participants received some information and a questionnaire with the February survey about a planned travelling road show titled 'NICE VISIT' (Various Interesting Speakers on Immunohaematology Topics). The response was so disappointing that this event has been put on hold. We are not prepared to spend TSSIG resources on projects in which no-one is interested. If we receive a flood of letters protesting that you really do want a travelling road show, we will organise one for the future.

NEWSLETTER

Some of you asked that we consider particular topics as subjects for the road show. Thank you for your input. Many of these would be appropriately dealt with by articles in the TSSIG newsletter, and we will try to cover them in the next few issues.

While we are on the subject of the newsletter, most of you are no doubt very capable of writing an informative or interesting article, query or note for publication. We do want to hear from you. Please send all contributions to Sheryl Khull.

All of you are capable of writing a scientific article for publication in the Journal itself. The TSSIG supports the use of the Journal for the publication of articles of scientific interest, and we would encourage you all to work towards publication of your work. The article in this newsletter 'How to Write a Journal Article — A Beginner's Guide' should be of interest to you.

EXAMINERS FOR NZIMLS EXAMINATIONS

The TSSIG is asked by the NZIMLS to put forward names of people suitable to serve as examiners in Transfusion Science. If you would like to suggest someone for consideration, please contact a TSSIG member.

WHO IS THE TSSIG?

The Transfusion Science Special Interest Group is simply a number of people from throughout New Zealand who are interested in Transfusion Science and prepared to do some of the donkey work towards making working in this field more interesting and rewarding.

We didn't get elected by any democratic kind of vote, we were self-selected by standing up and making our presence felt. You may feel that someone you know (maybe you?) could make a worthwhile contribution and deserves a chance to show what they can do. Great! Go ahead! Don't wait to be asked, just do it. If you want to attend the TSSIG meetings (the next one will be in Wellington in August) or be involved in the production of this newsletter, or offer to help with anything else the TSSIG is doing, just contact one of the TSSIG members. We'd love to hear from you.

In case you've lost the list published in March, here it is again:

David Wilson, Palmerston North — convenor
Alison Dent, Auckland
Grant Storey, Waikato
Roger Austin, New Plymouth
Sheryl Khull, Wellington — secretary
Kevin McLoughlin, Christchurch
Les Milligan, Dunedin
Lindsey Browning, Invercargill

REPORT FROM TRANSFUSION ADVISORY COMMITTEE (TAC) MEETING held 19th & 20th March, 1992

Compiled by: Dr S Gibbons, Regional Transfusion Director, Canterbury-West Coast Centre.

1. NZBTS Standards
   Unfortunately these are not completed. A working party is to be established to work with the Therapeutic's Unit of the Department of Health. The aim is to have standards available within three months.
2. Hepatitis C Antibody Testing
   No progress has been made on this issue. In anticipation that monies will be available in the next financial year, TAC has asked if the tender process can be initiated now, to allow testing to begin as early as possible in the next financial year.
3. Adverse Reactions to Fractionated Blood Products
   The Committee received a report from Dr Harding, Auckland Regional Blood Centre, covering the period January 1, 1992 — February 29, 1992. Eight adverse reactions were reported. Six concerned a single patient who receives monthly replacement therapy with Intragam, and of these, four occurred during 1991, lot numbers involved were 18402 and 22001. There was one reaction to SPPS.
   All adverse reactions should be reported through your Regional Transfusion Director to Dr Harding.
4. Blood Bank Operating Procedures
   This issue is still under review and a draft of standing operating procedures is anticipated by the next meeting.
5. Blood Donor Selection and Screening Criteria
   The TAC consider that all blood donors should be interviewed before donating. This requirement is to be included in the NZBTS Standards.
   Auckland use a stylised world map to indicate areas where HIV-1 is endemic. It was decided to trial this map in all Blood Donor Centres. A copy of the map may be obtained from Regional Centres.
   The medication deferral list used by blood donor staff is under review although it may be some time before a new list is circulated.
6. Fractionated Blood Products
   All regional centres are attempting to build up stocks of these products equivalent to three months supply. In addition, national stocks of three months are to be held in Auckland. Efforts are also being made to improve the stock control of these items and all regional centres are providing Auckland with a monthly balance.
7. Tetanus Immunoglobulin
   In the past, this material has been sourced from Australian plasma. This arrangement was recently reversed. Approximately 100 litres of New Zealand plasma has been collected for this purpose. In future Dunedin and Christchurch will continue to collect plasma for this purpose.
8. Intragam
   Further batches of Intragam (now three in total) have been found to be contaminated by significant quantities of anti-D. A search is underway to determine the source of the anti-D. Plasma with an anti-D titre of eight or greater by antiglobulin testing or other antibodies to a titre of 32 or greater should not be sent for fractionation to Intragam.
   Concerns have been expressed by clinicians that the batches containing anti-D are not suitable for the treatment of Rh positive children with hypogammaglobulinaemia or those who require high doses of gammaglobulin. A recent article in Blood, Intravenous anti-D treatment of immune thrombocytopenic purpura: analysis of efficiency, toxicity, and mechanisms of effect. Bussel J B, Grazino J N, Kimberler RP, Pahwa S, and Aledort L M. (1991: 7,9, 1884-1893) suggests there may be no major problem with anti-D contaminated Intragam. There are limited quantities of non anti-D containing Intragam available and alternative products such as Sandoglobulin may have to be used. If Sandoglobulin is required it must be purchased by the Area Health Board concerned.
   CSL have indicated they may require in the future that IgG titres of anti-A and anti-B not exceed 64 and 32 respectively. The TAC is reviewing the implications of this requirement.
9. Anti-CMV Immunoglobulin
   If this product is required by clinicians, individual hospitals will have to purchase it directly from CSL.
10. Cryoprecipitate Usage
    The amount of cryoprecipitate used is decreasing as treaters of haemophilia favour the use of high heat treated anti-haemophiliac factor. The TAC is keen to identify the patient groups now receiving cryoprecipitate and ask that this information be recorded.
11. Barcoding
    The ISBT and the Australian Red Cross have adopted Code 128 as the new standard. The TAC has also adopted this and plan to co-ordinate the transition from Codabar to Code 128 at the same time as Australia. The advantages of Code 128 are: it encodes alphanumerics, it incorporates a check digit system, the improved efficiency of the code enables more information to be encoded, eg donation number, country, centre ID and year of collection in the same space currently occupied by a Codabar.
    This latter feature means that duplication of numbers is unlikely to occur for at least 100 years.
12. Adverse Transfusion Reactions
    The TAC discussed which types of reactions should be reported in the national statistics. A discussion document is to be circulated amongst the regional transfusion directors on this subject. It is also planned to send a letter to the New Zealand Medical Journal concerning adverse red cell transfusion reactions which occurred during 1990/91.
13. Policy for Post Anti-D Immunoglobulin Testing in Rh(D) Negative Mothers
    Before recommending a change in policy the TAC is conducting an informal survey, through the regional centres, to determine the cost and other implications of introducing Kleihauer testing.
14. Donor Registration Forms
    These forms along with the AIDS pamphlet are reviewed at each meeting. No changes were suggested for the current registration form. Suggestions for changes should be directed through your regional blood transfusion service director.
15. Human Pituitary Gonadotrophin
    Individuals who have received, before 1988, either human derived growth hormone or human pituitary gonadotrophin are asked not to donate because of the concerns related to the transmission of slow viruses.
16. Immunoglobulin (IM) Usage
    Many overseas visitors are receiving free intramuscular immunoglobulin which is paid for from a national grant. Concern has been expressed regarding the cost of providing this product to overseas visitors. The TAC has asked the Department of Health for an exemption to allow charging of overseas visitors for intramuscular immunoglobulin.

The next meeting of the TAC is in Wellington on 9th-10th July, 1992.

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ARTICLES OF INTEREST

HOW TO WRITE A JOURNAL ARTICLE — A BEGINNERS GUIDE

by Roger Austin
Taranaki Base Hospital

Everyone working in a laboratory has a story to tell that is of interest to others working in the same or related fields. The proof of this has been the papers presented at the past three NICE weekends (102 in total). All of them had something to say and for every five minutes of presentation there was at least 10 minutes of discussion.

A good number of those presentations are capable of being modified and submitted as journal articles to the New Zealand Journal of Medical Laboratory Science.

For those of you who are unsure about how to write an article for publication the following are some ideas on how you can go about it.

Obviously there must be a subject on which to write. It may be a peculiar laboratory finding, a case study, a study of certain parameters in a population or it may be a review of published articles dealing with a particular topic. Get information on the topic from various textbooks, remembering to follow up any references quoted in the text for more detailed information on the subject. The latest few years of appropriate journals can be scanned to find updated information. This is not as tedious now as it used to be as most Medical Libraries will have access to CD-ROM or similar which upon entering some key words the journal abstracts can be shown on screen or printed out for you. Check it out with your librarian.

The next job is to read and make notes of the articles that have been located and relate them where possible to your case study or review ensuring that when you use such information in your journal article you acknowledge the source through the use of references. At this stage you may find that you need to carry out further investigations on your study in light of the information that you have gleaned.

Getting all the information that you have gathered, both as part of your study and from your literature search, into some sort of logical sequence can appear to be a daunting task. One suggestion is to look at the layout of similar types of articles and plan your information under the appropriate headings for the journal in which you wish to publish.

All journals will have directions for contributors and these must be followed to ensure acceptance and early publication.

For publication in the New Zealand Journal of Medical Laboratory Science directions are published in full in Volume 45, No. 4 — pages 108 to 111.

Having determined the journal you wish to have publish your work you can now arrange your information in the order required. An example would be:

Abstract:	Write this last as a stand alone summary of the important findings of your study or review.
Introduction:	Outline the purpose of your article bringing together things like a brief history if pertinent and state what it is that you are trying to demonstrate.
Materials and Methods:	Describe how you went about your study, what methods, reagents equipment etc. were used. Other workers using the information that you provide here should be able to duplicate your test procedures.
Results:	Present your findings with emphasis on the important observations.
Discussion and Conclusion:	In this section you relate any new or important findings to what you have stated in your introduction as being the objective of the article. Comparison with other studies and the implications and recommendations of your findings are included here.
Acknowledgements:	There will be a number of people who have helped you with your study. This is your chance to thank those who have made a substantial contribution to your study. You must ask them first though as they may not wish to receive such acknowledgement.
References:	As you use statements, facts, or information from other sources in your script you must indicate that source in an approved manner. Reading information for contributors (1) explains how it is to be done. Your medical library may have helpful publications such as How to write and publish a scientific paper (2).
Tables and Illustrations:	If needed, can simplify what you are trying to say in your article, again you are referred to (1) for advice. The main comment here would be, do not fill up tables with unnecessary information — it can hide the point that the table is designed to get across.

By this time the 2.5cm folder of information and data that you have collected has been reduced to 2-5 pages of concise information for you to create a meaningful title for and send it off to a grateful editor. Do not be surprised if you receive it back for correction. It does not mean that you have failed. You are the best person to make corrections and retain the purpose of your study. You will find the exercise very rewarding as will those who read your contribution.

Don't just think about it, do it!

References

1. Information for contributors. *NZ J Med Lab Science* 1991; **45**: 108-111.
2. Day Robert A, How to Write and Publish a Scientific Paper. 3rd ed. Cambridge University Press, 1988.

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TITRATION STANDARDS

by Alison Dent
Auckland Regional Blood Centre

Salmond Smith Biolab produce a Control Serum which is an IgG anti-D reagent. This is a useful reagent as a standard for titration work.

The current batch of Control Serum 9061/1, expiry September 1992, is still available and following it a further batch will be released.

This reagent is used at Auckland Regional Blood Centre as a standard for all titration work. When titrations are performed with doubling dilutions in AB serum and R_1R_2 indicator cells, a titre of 256 is consistently achieved with a variation of one 'tube' higher or lower acceptable.

Upon release of the new batch of Control Serum from Biolab, an update on the titre value achieved will feature in the next appropriate TSSIG newsletter.

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TESTING AND REPORTING ANTENATALS

by Grant Storey
Waikato Regional Blood Centre

The routine immunohaematological tests that should be carried out on an antenatal patient are a blood group (ABO and Rh D) and a blood group antibody screening test using either two or three selected screening cells by enzyme and indirect antiglobulin tests at 37°C. Pooled screening cells do not provide optimum sensitivity for antibody detection and may not be used when screening patients/recipients but are acceptable for antibody screening on blood donors. The rationale behind this is that it is not so critical if a weak antibody goes undetected in the plasma of a blood donor whereas in a patient or recipient the consequences of this can be serious — adverse effect to blood transfusion, possibility of haemolytic disease of the newborn. It is also sound practice to recommend that all women be Rh D typed a second time, no later than at delivery, to eliminate the risk of Rh D negative women being typed as Rh D positive in error and thus failing to receive prophylactic immunoglobulin. It is the patient's clinician who is responsible for ensuring that appropriate testing is carried out throughout the pregnancy.

The laboratory has the responsibility to report accurately the test findings and I also think it has the responsibility to ensure that the significance of abnormal findings are also conveyed (see Table 1).

Where a change in the test status has occurred i.e. marked increase in antibody titre result, it does no harm to telephone the clinician and alert him/her of the finding.

Table 1: *Example of antenatal report.*

BLOOD BANK
Waikato Hospital
IMMUNOHAEMATOLOGY

Patient No: Name;
D.O.B. Ward:
Clinician:
Specimen No:

Specimen Type: ANTIBODY IDENTIFICATION

Time of specimen:
Date of Specimen:

Antibodies — POSITIVE
Anti Fy^a DETECTED.

ANTIBODY TITRATION	ANTIBODY TITRE : 8 (BY IAT)
BLOOD GROUP ANTIGEN TYPING	Fy(a-)

General Comments
THIS ANTIBODY HAS BEEN IMPLICATED IN HAEMOLYTIC DISEASE OF THE NEWBORN. CONTINUE TO MONITOR ANTIBODY TITRE ON A REGULAR BASIS. FOR FURTHER ADVICE CONSULT WITH OBSTETRICIAN.
PLEASE SEND A BLOOD SAMPLE FROM THE FATHER FOR BLOOD GROUP PHENOTYPE TESTING.

Suggested scheme for antenatal and postnatal serological investigations from Blood Group Serology, Boorman & Dodd, 6th edition

Mother D Positive		
(1)	(2)	(3)
Normal history No atypical antibody No further test	History suggestive of HDN No atypical antibody Test as (4)	Atypical antibody Test as (6)

Mother D Negative		
(4)	(5)	(6)
Normal history No atypical antibody Repeat screen at 32 weeks, delivery. Test baby.	History suggestive of HDN No atypical antibody Repeat screen monthly from 28 weeks. Test baby.	Atypical antibody Titrate at intervals depending on the case. Test father and baby

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HLA FOR NON TISSUE TYPING PEOPLE

by Jacinta Payne
Tissue Typing Laboratory, Dunedin Hospital, Dunedin.

Four suggested texts suitable for non-tissue typing people to read and get a basic view of the HLA complex are:

— HLA Without Tears, Glenn E Rodney, De Nova Inc.
— Tissue Typing Techniques, H M Dick & W B Chrichton, Churchill Livingston.
— The HLA System, K Bender, Biotest Diagnostics.
— HLA Beyond Tears, Glenn E Rodney, De Nova Inc.

More advanced reading:
— Serological Definition of HLA-DR and DQ Polymorphisms, G M T Schreuder.

If anyone wishes to follow up on this reading, please feel free to contact any Tissue Typing Lab at the main Transfusion Centres, which are: Auckland, Palmerston North, Wellington, Christchurch, Dunedin.

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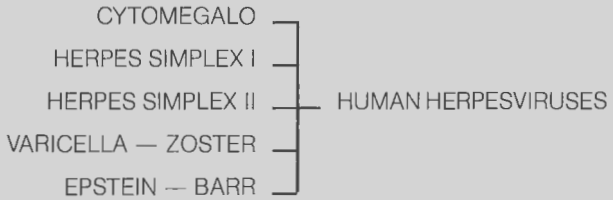
BLOOD TRANSFUSION AND THE TRANSMISSION OF CMV.

by Bronwyn Kendrick.
Dept of Transfusion Medicine, Palmerston North Hospital, Palmerston North.

CMV is one of the human herpesviruses. Other members include Herpes simplex I and II, Varicella-zoster and Epstein-Barr.



These viruses are grouped together as they have common morphological, biophysical, biochemical and biological properties. The chief biological property is the ability to establish a latent infection that persists throughout the host's lifetime.

Being a Herpes virus CMV has a linear, double-stranded core of DNA and a MW of 100-150 million daltons. A protein shell called a capsid surrounds the viral DNA. Surrounding this capsid is a lipid containing envelope from which viral-coded glycoprotein spikes protrude. Some of these have Fc receptor activity. The complete infectious virion can range from 180-250nm diameter.

HSV I, II and VZV have not been documented in transfusion acquired infections as the latency sites are the neurons or dorsal root ganglia. The latent virions are not usually found in the peripheral blood.

The latency site of the CMV is in monocytes and polymorphs of the peripheral blood and bone marrow. This accounts for the occurrence of viraemia in post transfusion infection.

Background

CMV was first recognised due to its ability to induce intranuclear and intracytoplasmic inclusions in the cells it affects. These inclusions are known as "owl's eyes".

In 1881 they were found in the kidney of a stillborn infant. By 1932, 25 cases of cytomegalic inclusion disease in infants had been found.

In 1956 the virus was isolated in cell culture and in 1965 the disease was first recognised in adults as heterophile-negative mononucleosis.

Transfusion associated CMV mononucleosis was reported one year later.

CMV infections typically result in a period of prolonged viral excretion followed by a state of latency. Latency is defined as the undetectability of a virus via conventional cell culture assays in a previously infected host.

Persons infected with one strain of CMV can be reinfected with an unrelated strain suggesting reinfections can occur in previously "immune" (seropositive) people.

Worldwide studies in adults show 40-100% of adults have antibodies to CMV.

Prevalence is directly proportional to age and inversely associated with socioeconomic level.

Female donors have a higher prevalence than males at any given age.

Modes of Transmission

ROUTE	SOURCE OF VIRUS
Congenital	Maternal Blood
Perinatal	Cervical secretions, milk
Close contact	Saliva, Urine
Venereal	Semen, Cervical secretions
Transfusion	Blood
Transplantation	Organ tissue

Blood transfusions are responsible for the direct transmission of new infections or new latent infections in thousands of people per year.

There are three types of infection — (a) primary
(b) reactivated
(c) reinfection.

Primary infection is characterised by the production of antibody to the virus. IgM antibody is followed by IgG production. There is usually viral shedding and the virus can be found in the saliva and the urine. The infection is nearly always asymptomatic in immunocompetent adults.

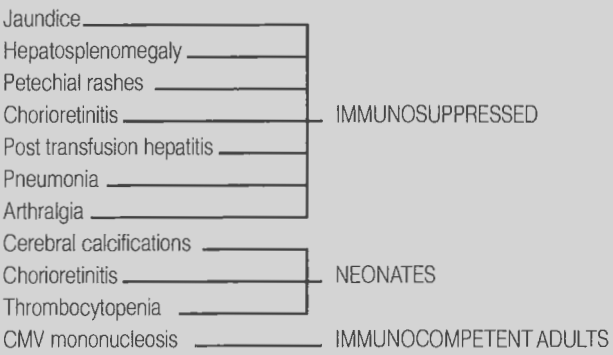
Reactivated infections are caused by latent, endogenous virus.

Reinfection can occur in people with prior serological evidence of CMV exposure. It is usually but not always accompanied by a rise in CMV antibody titer.

Recurrent infections are less likely to be symptomatic than primary infection.

Clinical Manifestation

A variety of clinical manifestations have been attributed to Cytomegalovirus infection. These include:



Classical fulminant cytomegalic inclusion disease was the first clinical syndrome linked to CMV infection. Jaundice, hepatosplenomegaly, petechial rash and multiple organ infection are prominent features of this syndrome. Infected infants are often microcephalic and may have cerebral calcifications, motor disabilities and chorioretinitis, along with hepatitis, pneumonia, HA, and thrombocytopaenia leading to high rates of mortality.

Fortunately less than 25% of infected infants are symptomatic and a much smaller percentage show classical CID.

In immunocompetent adults clinical evidence of CMV infection is rare. CMV mononucleosis is the most common presentation. In these people mild fever with a lymphocytosis accompanied by the presence of atypical lymphocytes similar to those seen in Infectious Mononucleosis are common findings. Hepatitis in these people is not normally a serious problem.

In immunosuppressed patients, a febrile mononucleosis is the most common presentation. Frequently however there is extensive organ involvement, fever, pneumonia, hepatitis, arthralgia and retinitis. These can be a direct cause of mortality. CMV has been implicated in post-transfusion hepatitis in the immunocompromised.

AIDS patients are nearly always actively infected with CMV. The infection in these patients tends to be more severe than in others and may present itself as pneumonia, hepatitis, chorioretinitis. The incidence of CMV as a contributor to mortality in AIDS patients is high.

Seronegative blood and products should be considered for those few seronegative patients who require transfusions.

Patients with malignancies have a higher rate of CMV infection than other types of patients except for those with AIDS and those receiving organ or tissue transplants. The

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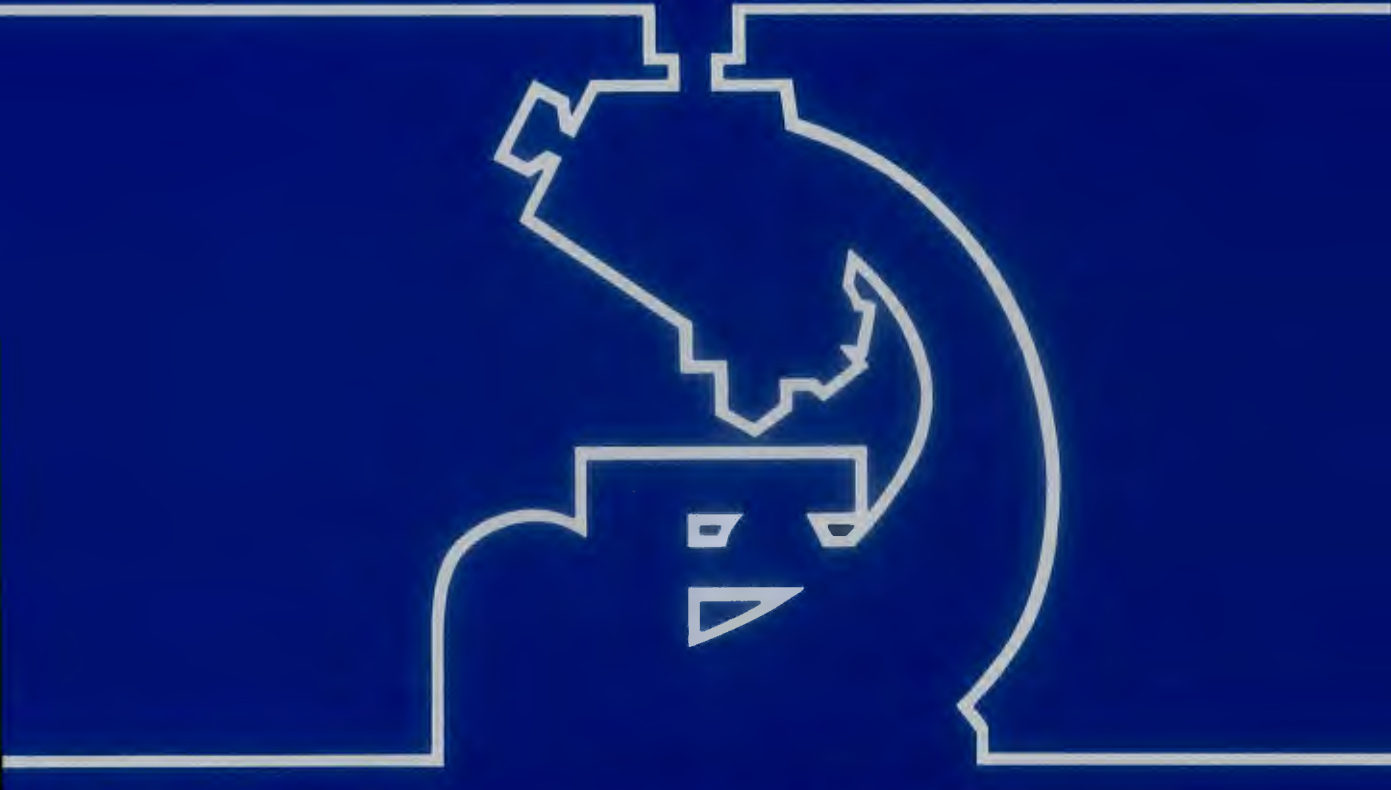
OF

MEDICAL LABORATORY SCIENCE



1992 ANNUAL REPORT
BALANCE SHEET AND
ANNUAL ACCOUNTS

EDUCATION COMMITTEE

Members of the Committee are: Council Members of the NZIMLS, Anne Paterson (Convenor).

The basic qualification of future Medical Laboratory Scientists (Technologists) will be the:

Bachelor of Medical Laboratory Science

Degree courses have commenced at two Universities this year: Massey University, and University of Otago.

Both Universities have selected their intakes into year II of their courses from intermediate students and trainee technologists.

In developing the course content of years III and IV both Universities are/will be consulting the SIGs (Special Interest Groups). The SIG's will act as auditors of proposed courses rather than attempting to provide more direct initial input. The aim is that future Medical Laboratory Scientists will be better equipped academically to meet the increasingly rapid changes in technology over the course of their careers.

The whole profession is and will continue to be indebted to the dedicated individuals who comprise the SIG committees. They are not only donating their own time to ensuring the two B.M.L.Sc. degrees will meet the needs of our profession, but also continue to contribute in the areas of Continuing Education and Examinations for current members of the profession.

Massey University B.M.L.Sc. Degree

Massey has three tiers of committees on which University staff and representatives from the NZIMLS work together in the management of the B.M.L.Sc. degree.

1. Medical Laboratory Science Advisory Committee
   Comprised of: Dean of Science, Two NZIMLS representatives and Two University staff. The function of this committee is to consider modifications and alterations to the degree considered desirable by either party. It will meet twice yearly.

2. B.M.L.Sc. Management Committee
   Comprised of: Head of B.M.L.Sc., Two NZIMLS representatives and Representatives from the Departments of Physiology, Biochemistry and Microbiology. The management committee meets monthly (at this stage) and its primary purpose is to oversee the requirements and the day to day running of the degree. It's other roles include liaison with the various SIG's of the NZIMLS and to implement the recommendations of the Advisory Committee. The Institute's representatives are Chris Kendrick and Ted Norman.

3. B.M.L.Sc. Admissions Committee
   The content of the Admissions Committee is yet to be finalised. It will meet as required before the next intake to consider the applications for the 1993 University year.

The University has accepted 31 students to the B.M.L.Sc. degree in1992. There are 29 fulltime "on campus" students and two students who have completed the year two papers for B.Sc, and require the two new papers in this year as prerequisites for year three in 1993.

The class is comprised of:	Science 1 students	14
	Vet Intermediate	13
	Trainee Technologists	2
	Science 2 students	2
	Total	31

The position of Associate Professor of B.M.L.Sc. has attracted considerable interest from within New Zealand and overseas. It is expected that an appointment will be made soon and that he/she will take up the position by August 1992.

University of Otago

The Professional representatives on the Board of Studies and Examinations (B.O.S.E.) for the Bachelor of Medical Laboratory Science (B.M.L.Sc.) are: Anne Paterson and Jim Le Grice. The B.O.S.E. administrates the B.M.L.Sc. course. It's Term of Reference is: 'The Board will be responsible to the Board of Faculty of Medicine of the University of Otago for the management and conduct of the course leading to the degree of Bachelor of Medical Science'. Both professional representatives on the B.O.S.E. are also automatically members of the Admissions Committee. This committee determines criteria and procedures for entry and selects appropriately qualified candidates.

The 1992 intake in year II of the B.M.L.Sc. is comprised of:

Intermediate students	24
Science 1 students	1
Trainee Technologists	1
QTA Laboratory Assistant	1
Total	27

Two other science students are completing appropriate subjects to join this class in 1993.

There are almost equal numbers of males and females coming from all parts of New Zealand. They are A to C+ grade students.

NZIMLS Examinations

Specialist Level

In 1991, there were 24 candidates in the following subjects:

Discipline	No. of Candidates	No. of Passes
Clinical Biochemistry	19	5
Haematology	6	4
Histology	1	1
Immunology	1	1
Microbiology	7	5

QTA

In 1991, there were 84 candidates in the following subjects:

Clinical Biochemistry	11	9
General Certificate	4	3
Haematology	18	15
Histology	5	5
Immunohaematology	4	3
Immunology	3	3
Medical Cytology	15	13
Microbiology	22	18
Museum Technology	1	1
Radioisotopes and Radioassay Technique	1	1

Note: The QTA examination will be held in July 1992 and in November from 1993 onwards.

National Diploma Medical Laboratory Science

Central Institute of Technology

Technologists on the Course Advisory Committee include Shirley Gainsford and Jan Nelson (representing NZIMLS), Kevin Bateman, Gerard Verkaaik, John Elliot (representing laboratories).

The student intake for 1992 is 11. The 1992 intake is the last intake for the NDMLS at CIT. However, the CIT has a commitment to complete the training of students currently in the course.

Auckland Institute of Technology

The Course Advisory Committee members who represent the NZIMLS are Jan Nelson and Shirley Gainsford.

Twenty-two students have entered the course in 1992 in the hope of gaining laboratory placements next year. If they are not successful, they can carry on and complete an NZCS.

The 1st February has been proposed as the completion date for the NDMLS. Currently there are 29 students in their fourth year who will be eligible to complete the course on 1st February 1993 and become the first group of students to graduate with the NDMLS.

MEMBERSHIP COMMITTEE

Geoff Rimmer (Convenor).

Membership has continued to fall during the past year but still remains at a reasonable level. All membership records have been successfully transferred to our Executive Officer to whom all correspondence regarding membership should now be directed.

	1991/92	90/91	89/90	88/89	87/88
Membership from previous year	1331	1315	1709	1465	1536
Less deletions	198	79	547	87	340
	1133	1236	1162	1378	1196
Plus applications	55	95	153	331	269
Membership as at 31st March	1188	1331	1315	1709	1465
Membership Composition:					
Life Members	17	17	17	17	16
Fellows	21	22	23	29	30
Members	670	725	688	781	752
Associates	393	476	503	741	579
Complimentary				43	123
Non-practising	61	61	53	68	58
Honorary	26	30	31	30	30

PUBLICATIONS COMMITTEE

Maree Gillies (Convenor).

There were seven papers proffered for publication in 1991. An unfortunate downturn as compared to the 19 in 1990 — budgetary constraints on laboratories limiting staff and materials may be contributing to the lack of scientific research undertaken.

The Publications Committee produced four newsletters reporting Council activities and my thanks go to Geoff Rimmer for his assistance in this area.

The Special Interest Groups have continued to gain momentum and their ever increasing activities in continuing education have been recorded in both the Journal and Newsletters throughout the year.

Once again, I would like to thank Trish Reilly, the Advertising Manager; the Royal NZ Foundation for the Blind and Maurice Sheppard of Institute Press for their continued assistance and support.

AWARDS COMMITTEE

Anne Paterson (Convenor).

Awards for top examination candidates are given on the following criteria:

1. Membership of the NZIMLS.
2. The grade achieved is B or better.

The current values of the awards are set at:

— Specialist level $200
— Certificate level $100
— QTA $100

Our thanks and appreciation go to the following companies for their continuing generous support of our profession in these difficult economic times:

Amersham Australia Pty Limited
Bayer Diagnostics Limited
Biolab Scientific
Hoechst (NZ) Limited
Intermed Scientific Limited
Life Technologies Limited
Medlab South Limited
NZ Blood and Leukaemia Foundation
Organon Technica/General Diagnostic
Pacific Diagnostics
Sci Med (NZ) Limited
Scientific Supplies
Watson Victor Limited

Journal awards, valued at $200, are offered in different categories on a biennial basis. For the previous fiscal year we thank: Roche Products (NZ) Limited for sponsoring the Microbiology Journal award. The Membership of the NZIMLS sponsored the Hilder Memorial Prize and Industry Display award.

The 1991 Wellcome Travel award was presented to Mr Dennis Reilly. It represents a pinnacle of achievement. Recipients of this prestigious award have contributed to Medical Laboratory Science, both scientifically and professionally, over many years.

Our sincere gratitude and appreciation go to Wellcome (NZ) Limited for continuing to offer this valuable award.

OVERSEAS AID COMMITTEE

Members of the Committee are: Ted Norman (Convenor), Marilyn Eales and John Elliot.

At a meeting of Executives at the Auckland Congress it was decided that the New Zealand and Australian Institutes should explore ways in which joint overseas aid projects could be set up.

A suggestion of joint funding of a Quality Assurance programme which is being run by the P.P.T.C. for Pacific Island Laboratories did not find favour with the Australian Executive who favour the sponsoring of individual Laboratories.

During this year Council, and many individual Institute members, have continued to support the P.P.T.C. in many ways.

This support is greatly appreciated.

Once again special thanks go to Marilyn Eales who puts so much work into the interesting Pacific Way section of the Journal.

SPECIAL INTEREST GROUPS

Dennis Reilly (Convenor).

SIGS respond to calls for communication and education.

A network of SIGS contacts has been established throughout the country to enhance communication.

The Journal and Newsletter have been used well to advise of workshops, journal clubs and study guides for students.

Questionnaire returns have been studied to highlight areas where relevant workshops could be arranged.

SIGS have reviewed examinations syllabi and have suggested suitable staff to act as examiners.

FELLOWSHIP COMMITTEE

Sub-committee members: Kevin McLoughlin, Howard Potter and Jim Le Grice (Convenor).

Ms Glenne Findon was awarded Fellowship of the New Zealand Institute of Medical Laboratory Science by exemption, based on her submission "The Pathobiology of Urinary Tract and Related Infections".

This submission summarised a decade of intensive work undertaken in the Department of Medicine at Auckland Hospital on this subject.

TREASURER'S REPORT

The past financial year has ended with a surplus of $20,662.

Income from subscriptions has decreased owing to the removal of non paying members.

There was a significant surplus from the South Pacific Congress resulting from last minute registrations. On the Monday of congress week the break even number of 300 registrants was reached. By the end of the congress, total registrants were 524.

A grant of $10,890 was made to the Special Interest Groups for post graduate education and the Council hopes that these activities will increase.

The Executive Officer is now keeping the membership records and doing the routine banking transactions, thus resulting in more hours of work and an increase in secretarial expenses.

There is no separate journal account statement this year and a statement of cash flows for the year has been included in the financial statement.

S.A. Gainsford
HONORARY TREASURER

NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE INC. SOUTH PACIFIC CONGRESS ACCOUNT FOR THE YEAR ENDED 31 MARCH 1992

	1992 $
INCOME FOR THE YEAR WAS DERIVED FROM:	
Registration	147,149
Trade rentals, advertising and donations	66,375
Social functions and lunches	—
Bank interest	381
Other income	2401
Sponsors	16,900
	233,206
FROM THIS INCOME THE FOLLOWING EXPENDITURE WAS MET:	
Advertising and printing	14,732
Travel, accommodation and meals	36,212
Social function costs	53,956
Rentals and venue hire	29,519
Postage, stationery and administration	21,902
Other expenditure	6,944
Displays	14,462
Speakers	33,698
TOTAL EXPENDITURE	211,425
Excess income over expenditure transferred to the Statement of Income and Expenditure	$21,781

The attached notes form part of this statement.

NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE INC.
STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 MARCH 1992

	1992 $	1991 $
INCOME FOR THE YEAR WAS DERIVED FROM:		
Congress surplus (as per statement)	21,781	6,252
Examination surplus (as per statement)	5,279	9,065
Interest received	8,846	7,274
Miscellaneous income	6,718	4,580
Subscriptions and levy	53,405	64,828
Refunds	—	851
Donations	—	1,500
Journal Income	30,183	28,989
	126,212	123,339
FROM THIS INCOME THE FOLLOWING EXPENDITURE WAS MET:		
Accommodation, etc	5,888	8,486
Accountancy and audit fee	3,000	3,000
Bank Fees	458	—
Computer Services	—	565
Depreciation	5,430	2,837
Fees —IAMLT	2,925	2,926
Gifts	2,310	—
Journal cost	41,013	49,131
Post Graduate Education and Pacific Training	—	2,247
Postage and tolls	8,587	6,749
Printing, stationery and typing	3,532	8,809
Prizes	2,400	5,231
Secretarial fees	8,432	2,115
Seminars/conferences	3,076	—
Sundry expenses	1,497	7,685
Travelling expenses	17,002	17,862
TOTAL EXPENDITURE FOR YEAR	105,550	117,643
Excess of Income Over Expenditure	20,662	5,696
Donation to PPTC	—	6,020
Surplus/(Deficit) for the year	$20,662	$(324)

The attached notes form part of this statement.

NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE INC. STATEMENT OF FINANCIAL POSITION AS AT 31 MARCH 1992

		1992 $	1991 $
ACCUMULATED FUNDS			
Opening Balance		85,236	85,560
Surplus/(Deficit) For The Year		20,662	(324)
Closing Balance		105,898	85,236
Represented By:			
CURRENT ASSETS			
Cash At Bank	(Note 4)	96,184	68,141
Debtors		5,930	7,277
Prepaid Grants to Special Interest Groups		10,225	—
Advance to 1992 Conference		1,500	—
TOTAL CURRENT ASSETS		113,839	75,418
LESS CURRENT LIABILITIES			
Creditors		14,276	23,037
GST		7,667	(2,661)
Examination Fees In Advance		—	4,980
Congress Fees And Deposits In Advance		—	4,257
TOTAL CURRENT LIABILITIES		21,943	29,613
NET CURRENT ASSETS		91,896	45,805
INVESTMENTS	(Note 2)	—	20,000
FIXED ASSETS	(Note 3)	14,002	19,431
		105,898	85,236

Treasurer — S.A. Gainsford President — P. McLeod

The attached notes form part of this statement.

NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE INC. EXAMINATION ACCOUNT FOR THE YEAR ENDED 31 MARCH 1992

	1992 $	1991 $
INCOME WAS DERIVED FROM:		
Examination enrolments	18,705	21,608
Interest	488	1,534
Other	20	—
	19,213	23,142
FROM THIS INCOME THE FOLLOWING EXPENDITURE WAS MADE:		
Examiner's fees (gross)	4,308	7,074
Printing and stationery	414	285
Secretarial	8,928	6,345
Sundry expenses	284	373
	13,934	14,077
Excess of income over expenditure transferred to the Statement of Income and Expenditure	$5,279	$9,065

The attached notes form part of this statement.

NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE INC. STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 MARCH 1992

	1992 $
CASH FLOWS FROM OPERATING ACTIVITIES:	
Cash was provided from:	
Receipts from Customers	112,226
Other Receipts	22,677
Cash was disbursed to:	
Payments to suppliers and employees	(135,248)
Net cash flows from operating activities	(345)
CASH FLOWS FROM INVESTING ACTIVITIES	
Cash was provided from:	
Proceeds from Sale of Investment Securities	20,000
Interest Income	8,388
Net cash flows from investing activities	28.388
NET INCREASE (DECREASE) IN CASH HELD	28,043
ADD OPENING CASH BROUGHT FORWARD	68,141
ENDING CASH CARRIED FORWARD	$96,184

The attached notes form part of this statement.

NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE INC.
NOTES TO THE 1992 FINANCIAL STATEMENTS

1. STATEMENT OF ACCOUNTING POLICIES

The historical cost basis of accounting has been used in the preparation of the financial statements. Reliance is placed on the fact that the Institute is a going concern. Accrual accounting is used to match expenses and revenues.

Particular accounting policies:

(a) Fixed assets and depreciation
Depreciation is calculated on a straight line basis to write off typewriters, computer and office furniture over their estimated useful lives of five years.

There have been no changes in accounting policies. All policies have been applied on bases consistent with those used in previous years.

2. INVESTMENTS

There are no term investments as at 31 March 1992.

As at 31 March 1991 there was a term investment with National Mutual finance at $20,000 @ 13.0% which matured on 21/08/91.

3. FIXED ASSETS

	Cost	Accumulated Depreciation	Net Book Value
Office Equipment	10,449	7,081	3,368
Computer Equipment	15,068	5,658	9,410
Office Furniture	1,632	408	1,224
31 March 1992	$27,149	$13,147	$14,002
31 March 1991	$27,149	$7,717	$19,432

4. CASH AT BANK

	1992	1991
'00' account	41,430	10,823
'02' account	4,665	14,682
'25' account	25,403	11,632
Exam account	14,278	3,337
Secretarial account	4,558	7,667
'81' term deposit account	—	20,000
Special Interest Groups' accounts	5,850	—
	$96,184	$68,141

5. There are no comparatives shown for the statement of cash flows due to this being the first year of preparation.

AUDITORS' REPORT TO THE MEMBERS OF THE NEW ZEALAND INSTITUTE OF MEDICAL LABORATORY SCIENCE INC.

We have audited the financial statements on pages 1 to 5 in accordance with accepted auditing standards and have carried out such procedures as we considered necessary.

In common with other organisations of a similar nature, control over income prior to its being recorded is limited, and there are no practical audit procedures to determine the effect of this limited control.

Except for the possible effect of the limited control over income referred to in the preceding paragraph, in our opinion the financial statements give, using the historical cost method, a true and fair view of the financial position of the Institute as at 31 March 1992 and the results of its activities and cash flows for the year ended on that date.

26 June, 1992.
WELLINGTON

Deloitte Ross Tohmatsu
CHARTERED ACCOUNTANTS

available evidence to date does not indicate a need to supply these people with seronegative blood products. Though they may be at a greater risk of CMV infection due to their underlying disease or therapy, the degree of immunosuppression in most cancer patients does not increase significantly the risk of CMV disease.

Laboratory Testing

The direct detection of CMV in tissue or cells is easy due to the characteristic intranuclear inclusion of a single "owls eye" that occupies most of the infected cells nucleus.

Successful isolation of CMV in cell culture is very sensitive and has made possible the development of antibody testing and is a third means of diagnosis.

Antibody tests that measure IgG-specific or total antibodies (IgG, IgM, and IgA) are commercially available. These are very specific, sensitive and convenient for providing CMV seronegative blood. Most donor screening is done either by Elisa or latex agglutination.

We use a latex agglutination method which detects both IgM and IgG CMV antibodies. The cost of the latex CMV screen is about $1.30 per test.

Transfusion Policy

The current guidelines for transfusion practice in New Zealand as supplied by the Transfusion Advisory Committee, has no policy to offer on the question of the provision of CMV negative blood or products for CMV seronegative recipients.

At the Manawatu Regional Blood Centre we provide CMV negative blood for transfusion to neonates and infants up to four months old. As we use O Rh(D) negative blood for all such transfusions, we have screened our O Rh(D) negative donors for CMV antibody and so have a selection of seronegative donors. Over a two year period of screening during which we tested 1083 sera from O Rh(D) Negative blood donors we found a rate of 74% CMV antibody negativity.

A supply of CMV antibody negative blood is therefore always available for transfusion to these patients.

Another, but more expensive, means of reducing the risk of CMV transmission to neonates and the immuno-compromised is the use of leucocyte removal filters. As the virus is transmitted intracellularly by polymorphs and monocytes, exclusion of these cells from blood and blood products will prevent post transfusion CMV infection.

CMV immune globulin appears to be useful, but further work needs to be done to optimise its potential benefits.

It is thought that the storage of blood may decrease the risk of transmission of CMV. The move away from the transfusion of fresh whole blood has decreased the incidence of post transfusion CMV infection in the USA. There has been no controlled study done to date that supports this theory.

In some areas of high CMV antibody prevalence, it may be difficult to supply CMV seronegative blood. Our experience with the uncontrolled screening that we have done is that the incidence of CMV antibody negativity in the Manawatu appears to be much lower than that experienced by other workers.

At the moment each transfusion laboratory seems to have its own policy on CMV. With the move toward the provision of safer blood and products it may be timely for the TAC to consider a standardised policy for the future.

★ ★ ★ ★

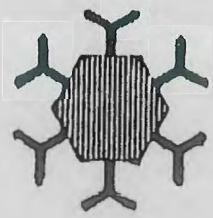
A PRELIMINARY LOOK AT POSSIBLE HLA AND COELIAC DISEASE ASSOCIATION IN THE OTAGO REGION.

by Robin Ashton, Les Milligan, Jackie White, Dr C Hewitt, Dr J M Faed.
Blood Bank, Dunedin Hospital, Dunedin.

Coeliac disease is a common cause of chronic diarrhoea, abdominal pain and growth retardation in children. Gluten causes a malabsorption syndrome with small bowel enteropathy. A definite diagnosis of coeliac disease is at present dependent on histological evidence of the lesion, evidence of its disappearance after an adequate period on a gluten free diet, evidence of its recurrence after the reintroduction of gluten into the diet. Anti-gliadin antibodies and anti-endomysium antibodies and the importance of human leucocyte antigen (HLA) typing, associations were first described with HLA-A1 and HLA-B8 and subsequently with DR3 and DR7. From the point of view of the diagnosis, it can be concluded that the finding of one of these antigens, although consistent with the diagnosis of Coeliac disease, cannot be assumed to prove it. If no such antigens are found, this is of great diagnostic importance because it implies that Coeliac disease can confidently be ruled out.

Thirty-four patients presenting with symptoms associated with possible Coeliac disease were typed for HLA-A, B, and DR and DQ specificities. Of the 34 patients typed, 11 patients lacked the antigens associated with the diagnosis of coeliac disease. Two of these patients were diagnosed with multiple food allergies, and three with wheat allergies. One patient was shown to have recurrent tonsillitis, another was presumed to have Giardiasis. Another patient was shown to have a feeding problem which was resolved and the final patient was diagnosed with psychological problems.

★ ★ ★ ★



IMMUNOLOGY
SPECIAL INTEREST GROUP

Convenor: Gillian McLeay.
Contact Address: Laboratory Training Centre, Building 18, Auckland Hospital, Private Bag 92024, Auckland.

WAIKATO/BAY OF PLENTY SEMINAR SATURDAY 9 MAY

Congratulations to Sherryn Cepulis, Waikato Hospital and her team on organising such a splendid day. The preceding weeks of nail-biting anxiety over the finalising of programme details, speakers, and late registrations vanished in a flash as everybody started to arrive for the promised hot coffee at 9.30.

Hamilton is so accessible for much of the North Island, and because of its size, you are not forced to drive forever through unknown territory to reach your destination, as in the larger cities.

Sixty people attended. Not only were the locals from the region out in force, but also folk from Whangarei, Auckland, Tauranga, Wanganui, Palmerston North and Nelson.

The Disabled Resources Centre was an ideal venue. A Lockwood construction with a carpeted seminar room, comfortable chairs and a dining area down one end. There was a kitchen for organising the food, and plenty of parking right outside. As a bonus, the weather was cool but fine, so we could drink our coffee outside.

The morning programme began with Ray Nicholas, the Laboratory Manager at Waikato Hospital welcoming everyone. Then David Haines from Auckland took the chair and got things underway.

First up was John Scott (Virology/Immunology, Auckland Hospital) who spoke about skin testing for allergies, including problems associated with performing and interpreting tests for food allergies. A practical demonstration on two volunteers showed us how it should be done. The audience took the opportunity to ask lots of questions.

David was next with a discussion on ELISA technology (a boring subject according to him), but judging by the amount of dialogue, the audience felt this troubleshooting session worthwhile.

Sherryn spoke about that old favourite, Brucella serology. Human brucellosis is no longer considered a problem in New Zealand. However, it still has some significance in rural areas such as the Waikato, and for veterinarians and workers in the meat industry.

Sherryn discussed results of testing over the past few years, especially with regard to more modern techniques such as ELISA. Audience participation was brisk on this one also.

Jenny Lindemann gave us something to think about with her presentation on the role of the laboratory in the diagnosis of Rubella, pointing out the responsibility we have for really accurate results and good follow up procedures.

The array of food that arrived for lunch was generous and mouthwatering, and despite hearty appetites, some of it would have been passed on to "deserving cases" later that evening.

John McKay (Virology/Immunology, Auckland Hospital) had been invited to be chairman for the afternoon, but had a prior family engagement, so David was in the "hot seat" once more.

Marjorie Bridle (Virology/Immunology, Auckland Hospital) gave an update on HIV testing, outlining the sensitivity and specificity of the various techniques in use, and problems associated with interpreting and reporting results.

Dr Ray Cursons (Waikato Hospital) led a discussion on DNA Technology. This topic had been included in the programme for the benefit of the students present. He then went on to describe PCR Techniques and their application in laboratory diagnosis.

Ronald Mayes (Rotorua Hospital) reported on the Hepatitis C workshop held in Wellington in March, and presented the paper he had prepared for that occasion.

Ray Cursons was last on the official programme with a talk about the diagnosis of Chlamydia.

He also commented on the interpretation of results of all types of tests. Little account is taken of the clinical significance of results for different population groups with varying incidences of infectious disease. Something to go away and think about.

Afternoon tea (which included scones with jam and cream) ended the formal part of the day. This provided an opportunity to view some of the text books on display, which had been loaned for the occasion by Medical Books, Auckland. Prospective Microbiology exam candidates expressed interest in one book in particular, which is reviewed in this edition of the Journal.

Some of us had to set off for home, but others were making a weekend of it. First a visit to one of the local hostelries, followed by a restaurant for dinner and then "trip the light fantastic" at one of the local night spots.

Sunday saw them plucking up courage to squeeze down to some of the lower recesses of the Waitomo Caves, or fly high in a hot air balloon. Those who get the Network News will be able to read the adventures of those who stayed for the second day of this one day seminar.

REGIONAL REPRESENTATIVE RESIGNS

Joy Odgers has regretfully announced her resignation as ISIG representative for Northland. She feels she cannot give the time and energy the job requires due to pressure of work.

Thank you Joy for your support in the past. You will remain a member of the Network, so we can look forward to seeing you at future ISIG gatherings.

We are seeking a replacement to act as motivator and coordinator for Network members in the far north. If anyone would like to volunteer, please contact Gillian at the address at the beginning of this report.

CONFERENCE 1992

Gerry Campbell (Wellington Medlab) reports that programmes for both the Immunology forums are coming along well. As reported earlier, the Friday (27 August) session on HIV is complete, but Gerry is still looking for written confirmation, in the way of abstracts rather than verbal promises, for Thursday. In addition, people attending the Thursday session are invited to just stand up and share some item of interest (no abstracts needed, but he would need to be notified of the topic).

Preparation for the ISIG ANA Workshop (Wednesday 26 August) is proceeding well and the slides and sera will be sent out to laboratories shortly.

The annual ISIG get-together (lunch and AGM) will take place after the workshop. Further details to be published later in the August Network News.

CHOOSE A LOGO COMPETITION

As those who receive the *ISIG Network News* will know, I ran

a competition in the June edition to choose a logo for ISIG.

ISIG has had a logo since its beginning in 1990, and it appears it has been a trendsetter. By popular request, it was agreed that the other SIGs should be given the opportunity to have their symbols of identity as well.

Deborah Richards a Technologist at the Auckland Children's Hospital, and also a talented artist, was commissioned by Maree Gillies, the Journal Editor, to draw a logo for each discipline. These were then sent to each SIG for approval, or the request to provide an alternative.

I felt it was only fair that the Network be given the choice between Deborah's imaginative concept and the more stylised one I had chosen.

Democracy is a tedious process on some occasions and this was no exception. There was only a small response, but it was enough to retain the present logo.

I did not vote, considering I had a vested interest. However, if the result had been a draw I would have felt justified in having a casting vote. You may be interested to know that I would have voted for Deborah's logo!

haematology

SPECIAL INTEREST GROUP

Convenor: Ross Anderson.
Contact Address: C/- Anne Cooke,
Laboratory Training Centre, Building 18, Auckland Hospital, Park Road, Auckland.

Heading this newsletter is our new logo and letterhead designed by Steve Johnson from Medical Diagnostics, Palmerston North. The competition held during the recent Seminar in Exotic Haematology in Auckland attracted over 50 entries and was judged by the HSIG committee and Regional Representatives. The winning design has been slightly modified by computer design and can be used as either a three colour design or in black and white. Look for it on our letterheads and as a masthead in the Journal.

Reports are included on two successful seminars held recently and in the next issue of the Journal we hope to carry a report on the Otago/Southland regional seminar that was held on Friday 17th July in Dunedin.

HSIG ONE DAY SEMINAR AT PALMERSTON NORTH 28 MARCH 1992

We had the company of about 35 laboratory staff from Taranaki, Hastings, Wellington and in between these cities at the library of the new Palmerston North Transfusion Centre. There was only just enough room for us all but it was comfortable and cosy.

The day started with morning tea and a short time to chat. Time to meet up with old acquaintances and meet some new faces.

The first session was taken by Dr Elayne Knottenbelt on Myelodysplastic Syndromes. Dr Knottenbelt is the Haematologist at Palmerston North and she covered the topic of M.D.S. in a very clear and interesting way. No doubt there will be more cases of M.D.S. picked up in our area from now on!

We retired for lunch and some folk took the opportunity to have a look at the new Haematology and Transfusion Medicine Labs.

Back to the library for a selection of short presentations from local laboratory staff. Subjects included: Cytogenetics, Biphenotypic Leukaemias, B12 and folate deficiency in a patient on methotrexate, combination of HbE and Thalassaemia in an Asian family, Haemolytic Anamia, I.T.P., an acquired FVIII inhibitor in a non-haemophilic and Cytokines.

After afternoon tea Chris Kendrick brought us up to date with the new Massey degree course. We discussed this topical subject for some time. Finally we had a short discussion on how HSIG can best keep smaller and isolated labs well informed.

The day ended with a relaxing barbeque at Dave Hebden's home for those who were able to stay.

EXOTIC HAEMATOLOGY SEMINAR

A seminar in Exotic Haematology was recently held in Auckland, organised by the Haematology Special Interest Group (HSIG).

The seminar was of a very high quality with guest speakers including:

Dr John Walker, Director of Parasitology Dept, Westmead Hospital, Sydney.
Dr Rod Ellis-Pegler, Infectious Diseases Physician, Auckland Hospital.
Dr Rasalingham, G.P. and President of the Auckland Refugee and Ethnic Councils.
Dr John Rea, Mangere Immigration Hostel, Medical Officer.
Neil Caddie, N.Z. Immigration Service Manager.

A very wide range of topics was covered beginning on Thursday morning with the Immigration perspective; including some poignant accounts from three immigrants seeking asylum in New Zealand. Having been put in touch with the human side of things, Thursday afternoon presentations included Haemoglobinopathies from the view of global patterns, immigration trends, laboratory diagnosis and case presentations.

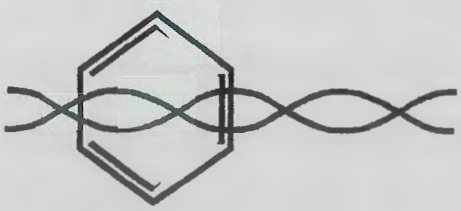
Friday saw us all wriggling in our seats as we heard about the morphology and detection of various parasites ranging from Malaria and Microfilaria, through to Schistosoma and Chlonorchis. Friday afternoon finished with a pot-pourri of Tuberculosis, Heart Disease, Factor XII Deficiency and Hereditary Ovalocytosis.

The presentations were all extremely interesting and well delivered. The number of registrations from all round New Zealand were over 90, reflecting the degree of interest in this seminar.

The excellent morning teas and the social evening kept us not only well provided for, but gave everyone an opportunity to catch up on what the rest of the country is doing!

During the seminar, a competition was run to design a new logo for HSIG to use. Kathryn Schollum was pleased to be able to present Steve Johnson from Medical Diagnostics, Palmerston North with a couple of "exotic" bottles of wine for his winning entry.

We look forward to next years seminar and the chance to renew our acquaintance with our colleagues from around the country.



BIOCHEMISTRY

SPECIAL INTEREST GROUP

Convenor: Alison Buchanan.
Contact Address: Clinical Chemistry Dept., Auckland Hospital, Park Road, Auckland.

. . . Annual Conference
As usual the year is racing by and we are rapidly approaching the NZIMLS Annual Conference.

All the Biochemists "out there", we hope you are putting the final touches to your papers for presentation.

. . . Boehringer Mannheim award
Remember the Boehringer Mannheim award — $1000 travel grant to travel to a meeting (nationally or internationally) associated with Clinical Biochemistry. It will be awarded to the best Clinical Biochemistry paper presented by a member of the NZIMLS at the Annual Conference.

. . . Special Interest Group Meeting
There is to be a meeting of the Biochemistry Special Interest Group at the Conference. We would like as many as possible to attend. The Group needs your input to know how best to serve your continuing educational needs.

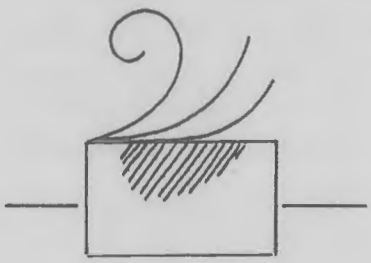
. . . NZACB
The NZACB is now, officially, the New Zealand Branch of the AACB. The Special Interest Group has been approached by their representatives with the suggestion that, as we have common interests, the two groups combine on matters educational. This was considered a good idea and the first combined meeting was held at the Auckland Group's June 20th Seminar.

. . . Seminar Report
With the New Zealand Branch of the AACB input the Seminar was extended to two days — Friday and Saturday — and attracted over 40 registrants. Thanks to those who presented papers, and to the guest speakers who took us from the "horrors of working conditions in a radiator repair shop" to the "frustrations, satisfactions and joys" of IVF.

. . . Word Perfect Workshop
A capacity crowd and motivated students made for a very successful one day Workshop. Our thanks to those who gave of their time and expertise to make it so.

. . . Massey Degree
We have had written, and personal contact with John McIntosh of Massey University who is currently developing the Clinical Biochemistry Curriculum. He wishes to keep us involved to ensure that the teaching meets the needs of the profession.

. . . QTA Syllabus
This is due for review. We would appreciate suggestions, comments and input for this review. Please send your suggestions to the Convenor, Biochemistry Special Interest Group.



HISTOLOGY

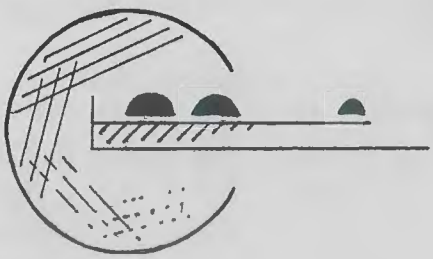
SPECIAL INTEREST GROUP

Convenor: Ken McGrath.
Contact Address: Histology Dept, Greenlane/National Womens Hospital, Claude Road, Epsom, Auckland.

A survey of Histology Departments around the country has almost been completed.

If any Laboratory has not been contacted please write to Ken McGrath so that you can be put on the mailing list.

Laboratories who replied to the survey will soon be contacted with the results.



MICROBIOLOGY
SPECIAL INTEREST GROUP

Convenor: Shirley Gainsford
Contact Address: Valley Diagnostic Laboratories Ltd, P.O. Box 30-044, Lower Hutt.

The MSIG has organised a seminar on respiratory tract infections which will be held on the morning of Friday 28th August at the NZIMLS Annual Scientific meeting in Wellington.

Topics include:

1. Viral respiratory tract infections: their laboratory diagnosis and the value of the diagnosis to patient and doctor.
2. The laboratory diagnosis of fungal pneumonia.
3. *Pseudomonas aeruginosa* infections of the respiratory tract.
4. Sputum culture from cystic fibrosis patients: a potpourri of practical pointers for recovery and identification of pathogens.
5. The microbiological examination of bronchoscopy specimens.

Excellent speakers and interesting papers are promised.

We hope to have a discussion on the role and membership of the MSIG at the conference.

MICROBIOLOGY WORKSHOP 1993

"A review of Antibiotics and Antimicrobial testing procedures"

Midyear 1993 Auckland

★ Guest Speakers ★ Hands on workshop
★ New equipment and techniques

Contact for updates:
Graham Thorne, Laboratory Training Centre, Blg 18, Auckland Hospital,Park Rd, Auckland 1, N.Z.

Mark in your 1993 Diary

Join us for the 48th Annual Scientific Meeting of N.Z.I.M.L.S. in beautiful Christchurch City.

The dates to remember are 24 to 27 August, 1993.

Plan to be there NOW.

BECTON DICKINSON

ROCHE
DIAGNOSTICS

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The system consists of colour coded media bottles, in 11 sets, aerobic and anaerobic.

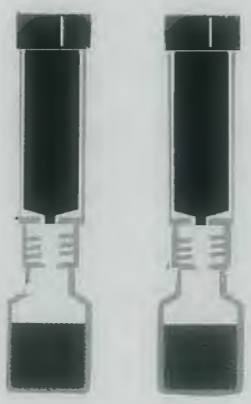
•Tryptic Soy Broth •Brain Heart Infusion •Thioglycollate •Columbia Broth •Schaedler Medium •Tryptic Soy Broth & 10% Sucrose •Plus, an ingenious subculture slide with Chocolate, MacConkey and Malt agar surfaces.

Each pair of bottles is joined by a plastic collar which ensures samples are not separated during transport.

Blood culture bottles contain Roche Liquoid®, the optimal anticoagulant which deactivates lysozyme, and neutralizes gentamycin, neomycin, kanomycin, polymyxin B,streptomycin etc.

The BCB System has proved its value in Paediatrics, particularly in the case of new born and premature infants. It is possible to isolate isolate the organism from the first blood culture 24 hours after collection.

Blood draw required: Newborn - 1 to 3mls, older children 5 to 10mls.



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The BBL Sensi-Disc® System - Meeting the needs of the laboratory with over 65 antimicrobial agents to choose from, and a dispenser designed with you in mind.

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FIRST AND LATEST

Glenne Findon and Tom Miller, both from the Department of Medicine at Auckland Hospital, are seen here complimenting each other on their respective academic accomplishments. Tom was the first "non-grandfathered" member of the Institute to be awarded a Fellowship and Glenne is the most recent. Since he gained his Fellowship by research thesis in 1967, coincidentally the year Glenne started training, Tom has completed an MSc, a PhD and topped it off this year with the ultimate academic accolade, a DSc (Doctor of Science).

Glenne completed her basic training in Wellington, specialising in Microbiology. She then spent nine years as Charge Microbiologist in the laboratory at Whakatane Hospital. Looking for a new challenge, she and her husband Tony moved to farm a block of land at Dairy Flat, just north of Auckland. Glenne had never considered research as a career option, but a job in Tom's laboratory was available and she decided to give it a try. At first she was unsure if her Technologists' training was appropriate for a research job, but as Tom says "it is difficult to find a more relevant qualification for research." In fact, Glenne is the third person to gain a Fellowship from this laboratory, the other being awarded to Jan Nelson, eight years ago.

The role of the laboratory has been to carry out research on clinical problems, particularly as they relate to infection and immunity. In the 25 years since he embarked on his research, Tom Miller and his colleagues have produced 125 international scientific papers, two MSc's, two PhD's, one DSc and three FNZIMLS's. This level of achievement would be regarded as outstanding within an academic institution such as a Medical School, but the fact that it took place within a hospital setting is even more remarkable. Sadly, this highly productive association between the hospital system and research recently came to an end when Tom and Glenne's positions were declared redundant. However, it is not the end of the work as the group's reputation has enabled both researchers to attract sufficient funding to carry on in the meantime, working under University administration.

Those who are attending the upcoming conference in Wellington will be able to find out more about the studies that led to Glenne's Fellowship, as she will be presenting a paper entitled "Subclinical pyelonephritis — evidence for such an entity in an animal model".

Glenne Findon and Tom Miller, Department of Medicine, Auckland Hospital.

BOOK REVIEW

"Biotechnical Innovations in Health Care"

(1991) ISBN 0-750-61493-5

Editor: Dr G Turnock, Leicester University, Leicester, UK.

Published on behalf of
Open Universiteit, Nederland and Thames Polytechnic, UK by Butterworth — Heinemann.

Reviewed by Gillian McLeay, Laboratory Training Officer, Auckland Hospital.

It seemed logical, after reviewing "An Introduction to Genetic Engineering", to follow up with a book describing the applications of DNA Technology in our own and related fields.

"Biotechnological Innovations in Health Care" is the work of several experts, mostly in Europe, and is one of the "BIOTOL Biotechnology by Open Learning" series. BIOTOL is a joint project initiated by the Open Universiteit and the Thames Polytechnic to develop advanced level flexible training materials, including books, computer-based and video training programs in biotechnology. In Europe, a network of colleges and universities provide tutorial support. I am not aware that this support is available in New Zealand.

These books are designed for those wishing to learn and apply the principles and techniques of modern biotechnology — (ie) a wide range of people in medicine, the biological sciences and commerce, with varying levels of background knowledge. This type of book, which is a tool for self learning and self assessment, is becoming quite common.

The book under review has been written more for industry than the health sciences, but research and development issues are very similar for both. For example, the concepts of Quality Assurance and Quality Control are identical. There are also some exciting new words such as *pharmodynamic* and *pharmokinetic*.

While I do not consider this an essential text for every laboratory, I believe that it provides insight into the development, manufacture, ethical considerations and licensing of certain therapeutic and diagnostic products prepared utilising this technology.

In addition to the sections on production protocols, there are eight case studies which are of particular interest to workers in Medical Laboratory Science. They are:

"Human Insulin of rDNA Origin"
"Erythropoietin — an alternative to Transfusion"
— renal case studies were interesting.
"Hepatitis B Vaccines"
"Orthoclone OKT3"
"Aujeszky's Disease"
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Enquiries to: Medical Books of New Zealand, 8 Park Avenue, Grafton, AUCKLAND 3. Tel: 0-9-373 3772, Fax: 0-9-373 3282.

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Membership fees for the year beginning April 1, 1991 are:

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

The Pacific Way

HERE AND THERE IN THE PACIFIC

Please don't turn a blind eye

Last year, 1991, the Pacific Islands Council for Blind Persons (PIC) held its first annual general meeting in Suva, Fiji, which included a three day planning session. Fiji, the Cook Islands, Papua New Guinea, Solomon Islands, Tonga, Vanuatu and Western Samoa and representatives of the Australian South Pacific Eye Consultant Team (ASPECT) of Melbourne, the Christoffel-Blindenmission of Germany, Foresight Australia, Hilton Perkins International of the United States, the International Council for the Education of the Visually Handicapped, regional office in Australia, and sponsors — Sight Savers of the United Kingdom took part.

PIC aims to ensure that needless blindness is prevented or corrected and that incurably blind people receive appropriate education and rehabilitation services. Organisational development services, technical assistance, and staff training will be provided by PIC to government bodies in non-government organisations in member countries.

It is projected that 80% of all blindness in the Pacific could be eliminated in the not too distant future. Mr Bill Winkley of Sight Savers said that in Papua New Guinea where he spent four years, 5% of the 4,000 people tested had cataracts,and 51% of people in the 50's had them. The situation was similar in the Solomons because people took for granted that when you got old, you went blind, he said. An estimated 20 million people worldwide are made blind by cataracts, yet this kind of blindness can be relatively easily cured by operations.

Education is basic hygiene and good diet would greatly assist the problem.

In Kiribati,lack of Vitamin A has led to blindness, mainly because Kiribati was an atoll and vegetables containing Vitamin A could not be grown there. Vitamin A tablets are being distributed there, work will then be done to improve the diet.

Another blinding disease is trachoma, associated with overcrowding and lack of hygiene and particularly clean water. Better eye hygiene is needed.

PIC's aim is organisation, development and training which will begin with primary eye care. It's most effective strategies will be to invest in "People Power".

Volunteer Service Abroad (VSA) in the Pacific

The Pacific remains VSA's major area of work, reflecting its position as a fellow Pacific nation with special responsibilities and relationships with the peoples of Polynesia and Melanesia. Forty volunteers were working in the Pacific at the end of June, 1991. A large number of assignments remain within the eduation sector but an increasing diversification of activities, combined with a geographical focus in carefully identified priority areas, will see a trend away from placing teachers in secondary schools. Currently VSA volunteers are in the Cook Islands, Kiribati, Niue, Papua New Guinea, Solomon Islands, Tokelau, Tonga, Vanuatu and Western Samoa.

The death of a VSA volunteer teacher in Vanuatu from malaria was mourned by her school, village, the volunteers and VSA at large, and emphasised once again the type of hazards volunteers and their communities confront.

VSA is a non political, non religious New Zealand agency dedicated to the achievement of sustainable economic development, social justice and international understanding.

The New Zealand/Vietnam/Cambodia Project

This project is based on partnership both beteween the supporting groups here, and with the Vietnamese and Cambodian authorities. An essential aspect of the New Zealand commitment is the provision of supplies and equipment to help make the work of the volunteer team viable.

To this end the Project Committee put out a general call for help, especially for medical and educational material. The response came from right around the country and resulted in a containerload of indispensible equipment being dispatched from Wellington.

Support came from both individuals and groups in the Project Network especially Medical Aid Abroad whose range of contacts in the medical field were invaluable. The medical equipment donated to the Project was a vastly diverse array of hospital and clinic essentials, including oxygen equipment, incubators, a dentist's chair, theatre operating light, wheelchairs, a foetal stethoscope and boxes upon boxes of laboratory gear, syringes, intravenous tubing, sutures and bandages.

So far the Vietnam sector of the Project is on schedule and further efforts will focus on Cambodia. VSA Director (Development), Chris Hawley, has successfully completed negotiations with the Cambodian government. He is confident that the plan for a VSA team to work in the Takeo Province, just south of Phnom Penh, to teach agriculture, health and education in an utterly deprived rural area, will be a positive contribution to reconstruction. He was forcibly struck by the fact that the total medical supplies for the commune of 10,000 people was a little cabinet of basic dressings and Disprins, about what a New Zealand family would keep for emergencies at home or in the holiday bach.

The World Health Organisation — W.H.O.

W.H.O. is a specialised agency of the United States with primary responsibility for international health matters and public health. Through this organisation which was created in 1948, the health professions of some 165 countries exchange their knowledge and experience with the aim of making possible the attainment by all citizens of the world by the year 2,000, of a level of health that will permit them to lead a socially and economically productive life.

The following practical books for medical laboratory workers were produced by W.H.O. in 1991. They are available from the Government Printers and are strongly recommended for Medical Laboratory Technologists in both the (so-called) Developed World and the Developing Countries.

Basic Laboratory Methods in Medical Parasitology
World Health Organisation Geneva, 1991.
ISBN 92-4-154410-4.

Basic Malaria Microscopy, Part I — Learners Guide,
World Health Organisation Geneva, 1991.
ISBN 92-4-154430-9.

Basic Malaria Microscopy, Part II — Tutors Guide,
World Health Organisation Geneva, 1991.
ISBN 92-4-154431-7.

Hookworm Infection and Anaemia: Approaches to prevention and control. Z.S. Pawlowski, GA Schad, GJ Stott.
World Health Organisation Geneva, 1991.
ISBN 92-4-154415-5.

NEW PRODUCTS AND SERVICES

PROSPECT GIARDIA — NEW MICROTITER ASSAY FORMAT

ProSpecT GIARDIA Enzyme Immunoassay is proving very successful in New Zealand Medical Laboratories. It is now available in a Microtiter Assay format to compliment the Coated Tube and Rapid Membrane Assays. This new format shares all the diagnostic benefits of the other formats that are now well accepted and caters for laboratories that prefer microwell assay systems. Breakaway microtiter wells enable you to test small or large batches of samples. It also features a ready to use colour reagent. As with the Coated Tube assay incubation is at room temperature, results may be read visually and controls are included in each kit. There are 96 wells in each kit. Catalogue number for this product is 580-96. Further details can be obtained from:

Ngaio Diagnostics Ltd. NELSON. Fax (03) 548-3043.

ENZYME IMMUNOASSAY FOR DETECTION OF CRYPTOSPORIDIUM SPECIFIC ANTIGEN

ProSpecT Cryptosporidium Microtiter Assay, an enzyme immunoassay for the detection of Cryptosporidium Specific Antigen is now available in New Zealand. This assay, with a total incubation time of one hour 40 minutes, requires minimal hands on time to process even a large batch of specimens. The assay is performed on a stool specimen dilution and, with the exception of PVA fixatives, all other fixatives or preservatives are acceptable. Specimens obtained from rectal swabs are also acceptable. Test results may be read visually or spectrophotometrically.

Various studies have shown the assay to have a sensitivity of 97% and specificity between 98 and 100%. Further details of this new assay can be obtained from:

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THE NEW PHADEBACT SYSTEM

KARO BIO who produce the Phadebact range of coagglutination identification test kits (formally marketed by Pharmacia Diagnostics) have launched a new range of diagnostic test panels.

Of interest will be their Streptococcus Respiratory kit. KARO BIO have rearranged the kit configuration for maximum economy of kit use, i.e. 100 A:S, 50 C:S and 50 G:S. The inclusion of a negative control reagent means it is possible to use only one of the specific reagents plus the negative control.

Other panels available include direct tests for Strep A and Meningitis. Recently a unique new diarrhoea panel (Shigella, Salmonella, ETEC-LT) has been introduced.

For more information contact:

Douglas Scientific, Fax (09) 837-5446, Ph (09) 837-5447, Freephone 0800 735-725 (Outside Auckland).

LABSYSTEMS

Douglas Scientific are now the exclusive distributors of the Liquid Handling and Laboratory Systems Divisions of LABSYSTEMS OY (Finland).

The Liquid Handling division produces the popular Finnpipette range of single, multichannel and multidispenser pipettes. (See advertisement in this issue).

LABSYSTEMS Laboratory Systems division specialise in the production of EIA MICRO Plate instruments and assays. Instruments such as the LABSYSTEMS "AUTO-EIA" are available to fully automate EIA procedures. Other instruments such as the world's leading Microplate reader, the "MULTISCAN" (over 10,000 units sold), complete the range for any EIA procedure.

Microstrips and plates are also available from LABSYSTEMS.

For more information and a 1992 FINNPIPETTE catalogue contact:

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ROCHE MICROBIOLOGY/BECTON DICKINSON MICROBIOLOGY

We are pleased to announce that Becton Dickinson Microbiology Systems and Roche Diagnostic Systems have reached an agreement that from May 7th Becton Dickinson will take over all aspects of the Roche Diagnostic Microbiology business.

All current pricing and contractual arrangements will be upheld and handled in New Zealand by Biolab Scientific.

Marketed by Biolab Scientific, Division of Salmond Smith Biolab.

NEW SAFETY DISPENSER FROM JENCONS

Jencons Scientific (UK) have just released an improved version of their popular Zippette range of adjustable safety dispensers. Featuring a new glass impregnated PTFE plunger, the new Zippette is even more smooth in operation than before, eliminating operator fatigue common to some other bottle top dispensers. Also, unlike all other bottle top dispensers, the Zippette does not need to be removed from it's sterilisable reservoir for replenishing. A new valve system prevents bounce and priming "spit", a common hazard with bottletop dispensers, making it a major advance in today's safety conscious lab. The Safety Zippette is now available in five fully adjustable sizes, 0-2.5ml, 0-5ml, 0-10ml, 0-30ml and 0-50ml, with all the features that have made previous models so popular, including an accuracy of ±0.7% and a repeatability of ±0.1%.

Sole New Zealand distributor, Biolab Scientific, Private Bag, Northcote, Auckland. Phone: (09) 418-3039, Fax: (09) 418-0729.

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Toxoplasma IgG, IgM
HSV 1 & 2 Antigen
HSV 1 & 2 Antibody IgG
CMV IgG, IgM
Rubella, Mumps, Measles, IgG IgM

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Adenovirus (Detect 40, 41)
H. Pylori
Chlamydia Ab

BIOGENEX: Immuno Hisochemistry

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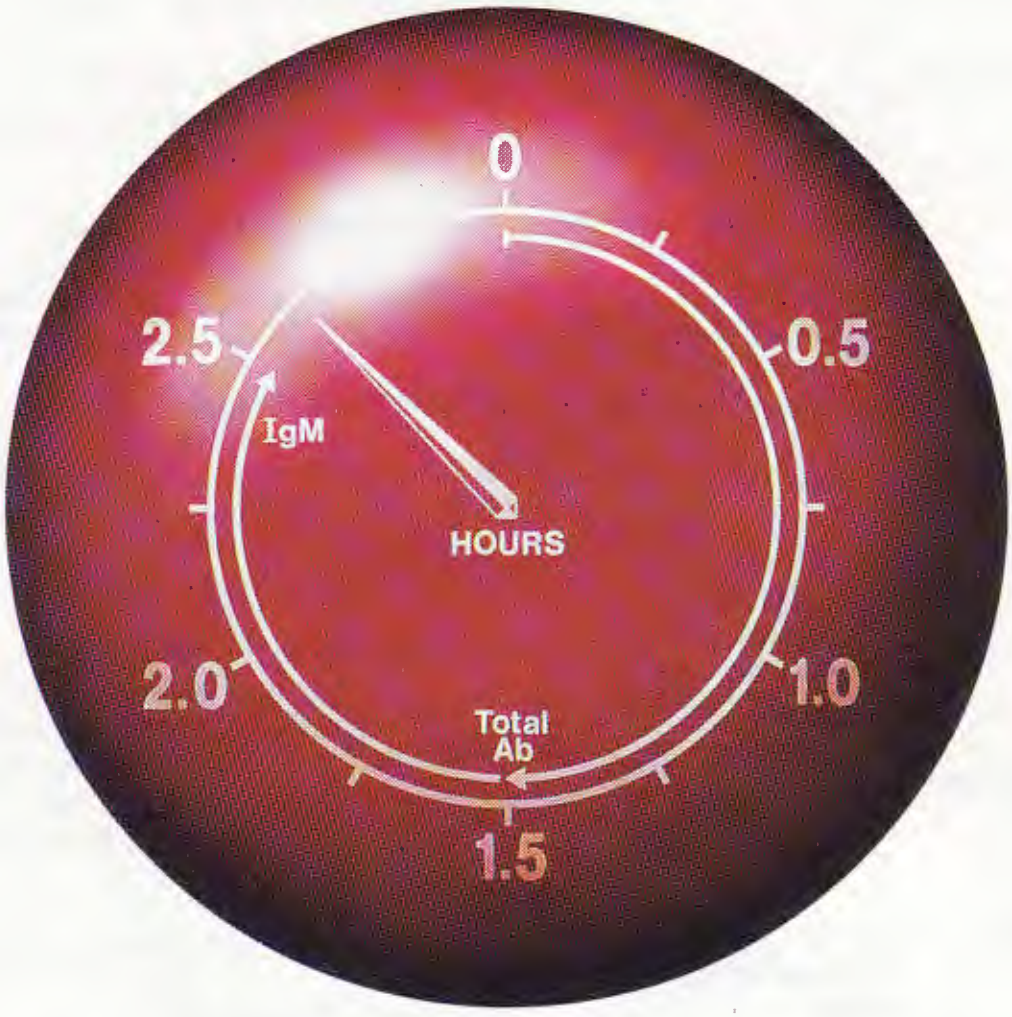

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