



# UNINEWS

Number 2, July, 1988.

## International recognition for breakthrough formula

At the recent International Exhibition of Inventions and New Techniques in Geneva, the Gold Medal in the Medical Section was presented to a Newcastle company for an invention, Alcusal Gel, which was developed as a result of research conducted at the University of Newcastle. Alcusal Gel is a patented anti-inflammatory formulation which has been developed for the relief of symptoms for arthritis and rheumatism sufferers and for sports injuries.

Alcusal Gel contains a unique, patented copper salicylate which penetrates the skin and circulates throughout the body to sites of inflammation. The copper salicylate is able to convert the superoxide radical to oxygen and, thereby, reduce tissue damage in areas of inflammation by the superoxide radical which is released from white blood cells attracted to the area.

In animal and clinical trials, Alcusal has been shown to be an extremely potent anti-inflammatory agent. It is more potent than many of the well-known anti-inflammatory compounds and shows low levels of toxicity. In fact, it can be considered non-toxic.

The copper salicylate compound has similar effects to aspirin (acetylsalicylic acid) but is far more potent. For more than 30 years it has been proposed that aspirin acts because it couples with copper in the blood stream and that it is the copper aspirin complex which is the active form.

Alcusal, the copper salicylate, appears to have the copper and



● Professor Boettcher and Dr Ray Walker with samples of Alcusal Gel

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## Inside this issue

This is issue number 2 of University News under its new banner UNINEWS.

UNINEWS is written and edited by the Information Officer, Mr John Armstrong, and contributions can be sent to him or Mrs Linda Aurelius, C/- the

Information Office, Extension 328.

In this issue: This page, the invention of Alcusal Gel; Page 2, the Vice-Chancellor reports on the function of a university and new Council; Page 3, MPs join the Council; Page 4, Newcastle is "on the move" and studying in

England; Page 5, research and technology report; Page 8, visiting geologists; Page 9, the Engineering/Science building and father and son meet; Pages 10 and 11, The Faculty of Medicine's 10th birthday; Page 12, biography of Jack Lindsay and appointment to Surveyors' Board.

# Function of a University



**A University has three recognised functions: to offer teaching and opportunity for learning; to conduct research and sustain scholarship; and to provide service to the community.**

By virtue of its very existence the University is part of and significant in the community. Service to the community is of course implicit in teaching, research and scholarship. But

more widely through its activities, the University is enabled to make important contributions directly to the cultural, intellectual, social and economic affairs of the community. This is abundantly evident for example in the availability of expert advice through consultancy services.

As a component of the community the University should be expected to provide expert advice and comment on matters of public concern in the community. In doing so there is a duty to ensure that the advice and comment conform to the high standards of impartiality expected of a university. It is of course not the corporate body of the University but individual scholars who have the responsibility to provide advice. In the event, it is not always easy to separate the advice of the disinterested scholar from the strongly held opinions of interested citizens — and it is not always easy to convince those

subjected to critical comment of the validity of this distinction.

The role of the University in providing facilities for debate on matters of high public interest must conform to this pattern. The University can and should provide opportunity for informed discussion of such matters. It can do so properly only if it is clear that its stance is one of impartiality. The standing of the University should ensure that all sides of contentious issues will be presented: it should be unthinkable that any honest view should either be excluded or withheld from such a forum. To ensure that the presentation is balanced and even-handed and is able to be seen to be so has to be prime requirement for the University. By achieving this, the University provides a service to the community not available elsewhere.

**K.J. Morgan,**  
Vice-Chancellor

## New faces at Council meeting



● The meeting of the Council on June 10 was the last for several members who did not stand for re-election and the first for some newly-elected members.

Before commencing formal business, members posed for this photograph, surrounding the Chancellor, Dr Elizabeth Evatt, and gathered in front of the portrait of the former Chancellor, Sir Bede Callaghan.

*Back row (from left):* Dr Noel Rutherford, Professor Alan Roberts, Professor Ron MacDonald, Assoc. Professor Don Wright, Dr Tom Callcott, Mr Pran Chopra, Professor Michael Carter (member till December 31, 1987), Professor Godfrey Tanner, Dr Tom Osborn, Mr Kent Gillman, Dr Peter Hendry, Mr Trevor Askle, Emeritus Professor Laurie Short, Mr Trevor Waring and Mr George Souris, MP.

*Seated (from left):* Professor Cyril Renwick, Dr Diana Day, Mr Carl Boyd, the Deputy Chancellor, Dr Alec Forsythe, Dr Evatt, the Vice-Chancellor, Professor Keith Morgan, Dr David Kay, The Hon. Virginia Chadwick, MLC, Ms Jane Azevedo and Dr Robyn Cotton.

*Absent from the photograph:* Mr Ken Booth, MP and Dr Doug Huxley.



## Members take up positions



● Mr George Souris, MP

The Hon. Virginia Chadwick, MLC, Minister for Family and Community Services and Minister Assisting the Premier on the Aged, and Mr George Souris, MP, have taken positions on the Council.

Mrs Chadwick has returned to her Alma Mater. She was associated with the University as a student and a student member of the Council. After graduating with a BA degree, she worked as a teacher in schools and TAFE colleges in Newcastle.

Mr Souris, MP for the Upper Hunter, lives at Singleton. He was a student at the University of New England, graduating with a BEC degree and a Diploma in Financial Management.



● The Hon. Virginia Chadwick, MLC

## International recognition for breakthrough formula, cont'd

Salicylate already in the active form and this is the reason for its potency.

As with many inventions, the development of Alcusal has built on the work of others.

The wearing of copper bracelets by arthritics has been known since Egyptian times. However, it seems that the first planned investigation of whether copper bracelets do provide some benefit to arthritics was undertaken by Dr Ray Walker (now retired from our Department of Chemistry) and Assoc. Professor Daphne Keats, of the Department of Psychology. Their carefully planned study, which involved 240 volunteers and both copper and placebo bracelets, clearly showed that, for some arthritics, the copper bracelet gave relief from pain. As indicated, it has been suggested from overseas studies that the action of aspirin depended on picking up copper in the blood stream, and that the copper aspirin complex was the active form.

In the period 1950 to 1971, Dr Werner Hangarter in the Bad Oldesloe Hospital, which is renowned for its treatment of rheumatic and arthritic patients, gave intravenous infusions which contained copper and salicylate. He did this because he was aware of reports that Finnish copper miners did not suffer from rheumatism or arthritis while they stayed within the industry. An American group, led by Dr John Sorenson, have worked on the development of a copper aspirinate tablet to be taken for inflammatory conditions.

On learning of Dr Sorenson's work, Dr Walker recognised that the copper aspirinate complex would break down in the acidic conditions in the stomach. Consequently, he reasoned that the most effective way of administering copper salicylate was to

pass it through the skin. This led him to develop Alcusal, the unique copper salicylate which will penetrate the skin and pass into the blood stream.

After trials on animals to examine efficacy and lack of toxicity, a veterinary product, Dermcusal, was marketed in 1983. The product rapidly gained acceptance by racehorse and greyhound trainers with animals which had joint problems and a problem in young race horses known as shin soreness. Many notable animals have been treated with Dermcusal, including Australia's Kingston Town and the 1986 winner of the Tokyo Cup.

Professor Barry Boettcher, of the Department of Biological Sciences, and Dr Walker, who had retired from the Department of Chemistry in 1984, were largely responsible for bringing Alcusal Gel to the market for human use in the middle of 1987.

In this venture, their partners were Assoc. Professor B.T. Colditz (who had earlier retired from the Department of Commerce), Dr S. Beveridge (formerly a PhD student under Professor Walker, and now in the Science Department of the Hunter Institute of Higher Education) and Dr M. Whitehouse, an experimental pharmacologist (previously of the Australian National University and now of the University of Adelaide).

The company which manufactures and markets Dermcusal and Alcusal Gel is Medical Research (Marketing) Pty. Ltd., of North Rocks. The company's Managing Director, Mr John Corbett, is the son of the founder who was the first person to synthesise acetic acid in Australia on a commercial scale.

Alcusal Incorporated Pty. Ltd., the small Newcastle group of academics, was a joint winner of the Smaller Business section in the

Newcastle Small Business Awards in 1987. It received a Highly Commended award in the New South Wales competition. In April this year it submitted Alcusal Gel for exhibition by the Australian Representatives, Beverly Gledhill and Paul Belfanti, for entry into the 16th International Exhibition of Inventions and New Techniques, which is conducted under the sponsorship of the Swiss Government.

This is the 15th occasion on which Australian products have been taken to the Geneva Exhibition by Beverly Gledhill and Paul Belfanti. It is the first occasion on which an Australian product has been awarded the Gold Medal in the Medical Section. This section is judged by medically qualified experts from Switzerland, France and Belgium.

Alcusal Gel has been investigated by a Japanese group and a joint venture has been initiated. The product has been submitted for registration to the Canadian Department of Health, which has approved it on the basis of efficacy and lack of toxicity. Distribution arrangements have been made in several other countries. Currently moves are being undertaken to bring Alcusal Gel to the large International Markets of the United States, Japan, the United Kingdom and Europe.

Alcusal Gel is an example of where the knowledge and expertise of Australian academics is being reflected in the market place and has led to developments which will boost Australia's exports.

Further, it promises to be part of the foundations for an Australian pharmaceutical industry, a long stated aim of Mr Barry Jones, the Minister for Science, Customs and Small Business.

# Newcastle is "on the move"

**The University of Newcastle is growing strongly and tackling growth-related issues in a positive way.**

This confident view of the University's position, and of its potential as a provider of quality education and research, was put to **UNINEWS** by the Deputy Vice-Chancellor (Administration).

Student members at Newcastle are up 11 per cent this year, showing an acceleration of the 6 per cent increase in enrolments in 1987.

'This is in sharp contrast to the position five years ago when there was a slump in university enrolments around Australia,' Mr Hennessy said.

'Newcastle has bounced back with exceptionally strong growth this year and we expect a continuation of this trend next year.'

'Clearly the University must adapt administratively, and in other ways, to the changing environment, and I have found most people in the University prepared to work together to find solutions.'

'We have a great future in providing higher education to the Hunter Valley Region and to students from around Australia and overseas.'

'Our student growth suggests that my view is shared by a lot of parents and students.'

Other features of the 1988 enrolment are:

- a steady move towards full-time study and away from part-time courses.
- an improvement in the participation of women.

The University's student members in 1988 total 6,375 — a record. Five years ago it was 4,435.

New undergraduates this year totalled 1,793.

The figure for new enrolment of full-time students increased from 66.5 per cent in 1987 to 68.3 per cent this year, due largely to an increase in new full-time undergraduates — 83 per cent compared with 80 per cent last year.

On a Faculty basis, the largest areas of student growth are Science (19.2 per cent), Mathematics (17.5 per cent), Economics and Commerce (14.8 per cent) and Arts (10 per cent).

The enrolment of overseas students is 594. The greater number are from Malaysia (348), Indonesia (27), Hong Kong (24), F (15), Thailand (140) and India (11).

## Overseas Study

# Studying in England "a real treat"

**Imagine being an Australian student in England (the traditional centre for things academic) on a scholarship that provides for all your main needs.**

Bill Lang was at the University of Sussex in Brighton and described the experience as 'a real treat'.

Bill has returned to Newcastle, having completed his studies at Sussex, and recently began work in the Department of Linguistics as a Rothmans Postdoctoral Fellow.

He originated from Cessnock, where his father is a doctor. His chance to apply to study at an English university came in 1983, when, on the completion of his undergraduate studies at the University of Newcastle, he was awarded Honours Class I and the University Medal. Early the following year, he became a recipient of an Association of Commonwealth Universities Scholarship.

In the subsequent three years, while he was attached to the University of Sussex, he received a living allowance which he regards as 'comfortable' (£340 sterling a month) and didn't have to worry about paying student fees (the £3,500 sterling a year was included in the scholarship). Moreover, he was entitled to two return air flights while he was enrolled as a student.

Bill said he chose the University of Sussex for his postgraduate studies both because of its reputation as a leading study centre in linguistics and cognitive science and its reputation as an institution which fostered and encouraged interdisciplinary studies in general. It was also said to be a radical campus, unlike the best-known English



● Mr Bill Lang

tertiary institutions.

He said, however, that he had a 'rocky ride' in places (during his three years away). For example, his first winter in the south of England was bitterly cold. Nonetheless, coming into contact with many of the leading figures in his field was a most valuable experience. In particular, his close association with Dr Richard Coates, an eminent historical linguist, proved to be very profitable indeed.

Bill lived in a self-contained flat on the campus, the rental for which was £25 sterling a week. He cooked for himself and enjoyed student social life. Sports such as Rugby Union and tennis, visiting the

bars on campus and playing the guitar were welcome alternatives to academic pursuits.

'I also worked as a residential advisor (a sort of live-in information service/counsellor) and assisted new students to make the transition to university life.'

For years the common view was that, if young academics had any sense, they would study in Europe. After all, this was where the best teachers worked.

Bill's impression, on this point was that it was not so much a matter of the best teachers being in Europe. On the contrary, Australia has many fine teachers and good academic standards by comparison with Europe. In addition, following the severe financial limitations imposed on British universities by Mrs Thatcher's government, there were possibly even fewer academic opportunities in England than in Australia. However, where Europe does have a real edge over Australia, at least as far as linguistics is concerned, is in the 'volume and variety of academic traffic' passing through the universities. Thus, an aspiring academic was still more likely to meet up with scholars he needed to meet up with in Europe than in Australia.

Back in Newcastle University, Bill Lang now has begun work as the Linguistics Department's first ever postdoctoral fellow. At present he is attempting to articulate a theory of the lexicon (i.e. the 'word-store', the 'dictionary' in people's heads) — a project which he expects will take at least two years.

# Research and Technology

## Occupational cancer and the communication problem

'The one wish I have is that the cause-effect relationship be removed from the requirements on which our system of law is based.' In this report of Professor David Christie's inaugural lecture on June 8, the new Professor of Environmental and Occupational Health says that part of the problem of attributing cause in occupational cancer comes from the very real difficulty lawyers and doctors have in communicating with each other.

The notion that a certain cause A, is responsible for an effect B, is indeed a simple idea. This is evidenced by the story of the oldasant who sat every morning on his front verandah, looking at a tall paling fence from which a couple of the palings were missing. As regular as clockwork, at the same time each morning, his neighbour would take his donkey to market and the donkey would pass across the gap in the paling fence. The old man pondered and pondered on this phenomenon until one morning he leapt to his feet and shouted: 'Eureka! The end follows the tail.'

Perhaps of more immediate relevance to each of us, as individuals, is the way in which cause-effect relationships might impinge upon our own lives. Since it is high time that I returned to my subject of occupational cancer, I shall specify our need to work in a safe environment, and our need for just compensation should we be so unfortunate as to suffer the consequences of an unsafe environment.

This slide is an X-ray of the chest of a man with a fairly obvious lung cancer who was a cigarette-smoker all of his life and this is a well-established cause relationship. His widow, not unreasonably, contends that the cause of his lung cancer might be found in his work experience and, on enquiry, we might find that this work experience included 20 years of exposure to blue asbestos.

As far as the widow is concerned this is a most simple example of a cause-effect relationship yet, strangely enough,



● Professor David Christie

her husband's ex-employer sees it all rather differently. Someone has to sort it out, and that someone is usually a Judge — advised by assorted lawyers and doctors — and the problem is one of the attribution of cause in occupational cancer.

Part of the difficulty in deciding comes from the nature of the evidence, and part of it comes from the very real difficulty lawyers and doctors seem to have in communicating with each other.

Cancer can be caused by occupation. As far as the substances are concerned we can add the heavy hydrocarbons, asbestos, nickel, arsenic, aromatic amines, vinyl chloride monomer, and wood dust, to name but a few of the 22 or so accepted occupational causes of cancer. Twenty-two does not sound much, but it needs to be realised that, of the thousands of chemicals used in industry, in only a handful is there data allowing any kind of assessment of their carcinogenic potential.

Let us return to our widow whose husband died of lung cancer. You will recall that she was contemplating legal action against her late husband's employer and, as all of us know, she has a certain

amount of trouble in store for her as she travels down that track.

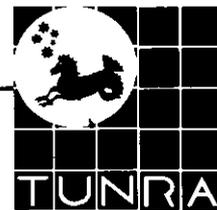
The difficulty is that clear and confident statements of cause cannot be made. Rather we are obliged to study what evidence exists, and to try to put together a conclusion from collections of rather incomplete and often poorly conducted research. Since our legal colleagues tend to have more experience in dealing with doctors who are 'often in error but never in doubt', those lawyers tend to have problems with the interpretation of epidemiological evidence.

What is required is judgement, and it might be of interest to consider just how a reasonable and rational opinion can be reached concerning the causal relationship of a possibly occupationally induced cancer.

The answer of course is that we need to systematically review what evidence exists and build a wall from that evidence. It is not the strength of any one brick of this wall that counts, it is the strength of the wall as a whole.

The problem is to assess causation of occupationally induced cancer — how likely is it that A caused B, granted that the two occur together more often than

*Continued next page*



### BULK SOLIDS RESEARCH

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# Middle ear disease can affect learning

**'Eighteen per cent of a sample group of children from Newcastle demonstrated evidence of recurring, or chronic, otitis media, or middle ear disease.'**

The speaker is Dr Judith Cowley, a Senior Lecturer in Special Education at the Hunter Institute of Higher Education, who was recently awarded a PhD degree for her work in the Department of Linguistics.

As part of her investigations into establishing the effects of chronic otitis media on the developmental and learning patterns of young children, Dr Cowley organised the sample group embodying a total of 202 children.

The subjects, ranging in age from four years nine months to five years eleven months at the commencement of the study, were selected to provide a variety of socio-economic factors and environmental conditions.

Dr Cowley used a battery of testing procedures and established that 77 per cent of the children studied showed some evidence of negative middle ear pressure which is usually an indicator of middle ear disease.

She said the results of a vigorous, and comprehensive, longitudinal testing programme demonstrated significant differences in performance

between those children who were identified as otitis media prone and a group of children with no history or evidence of middle ear diseases.

The differences have been demonstrated in their ability to comprehend and their reading skills, with the main areas of concern relating directly to their ability to remember what they hear and their functional use of language. All of these aspects have been found to be crucial to successful academic progression.'

The research did not find, however, that developmental delay and learning difficulties were inevitable sequela of chronic otitis media.

Dr Cowley stressed that differences in language development existed, particularly in the area of patterns of discourse, between those children who are otitis media prone and those who are not.

Therefore, an increase in the awareness of concerned adults in respect of the differences and their significance for learning appears to be an important factor in the academic achievement of the students.

At the HIHE, Dr Cowley's responsibilities include serving as Acting Course Director, Early Childhood, Interim Course



● Dr Judith Cowley

Director of a proposed Graduate Diploma in Speech and Language Refmediation and National Co-ordinator of Makaton Australia.

Makaton is a language programme designed by Margaret Walker, research speech pathologist at St. George's Hospital, London and is now used throughout Australia.

Dr Cowley is President of the Australian Federation of University Women (Hunter Valley Branch) and a member of Standing Committee of Convocation.

## Occupational cancer cont'd

one would expect by chance alone? We can build the wall of evidence by taking it brick by brick, starting with the strength of the association between A and B (how frequently do they occur together?) and considering factors such as time relationships, consistency, plausibility and analogy.

Let us try now to summarise all this. Any proposition relating to a possible cause-effect relationship will lie somewhere along a continuum:

At one end of this line lies the proposition that no rational person could believe; at the other end is the proposition that no rational person could disbelieve.

The difficulty faced by our courts, and by our industries, is in deciding where along this continuum a particular proposition may be located.

The correct attribution of cause in occupational cancer is important and operational decisions have to be made, here and now, on soft information which would not stand up in your average scientific meeting.

In this lecture I have tried to show the way that epidemiologists approach the question of cause, and suggested that this way of thinking does not endear itself to the legally trained mind.

I have, however, considerable respect for the latter [the legally trained minds] because they do have to reach decisions, and cannot conclude as we do that 'more work should be done' or that 'we shall reconvene this conference in 1992 when the results of the Mongolian trials are in'.



TUNRA offers industry research and consulting services, drawing on expertise available from the following Faculties (and Departments) of the University of Newcastle:

- Architecture
- Arts (Classics, Drama, English, Geography, History, Linguistics, Modern Languages, Philosophy and Sociology)
- Economics and Commerce (Commerce, Economics, Law and Management)
- Education
- Engineering (Chemical/Materials, Civil/Surveying, Electrical/Computer and Mechanical)
- Mathematics (Mathematics, Statistics and Computing Science)
- Medicine
- Science (Biological Sciences, Chemistry, Physics and Psychology)



# How and why does alcohol affect unborn babies?

Concern over alcohol's potential to affect the developing fetus can be traced back to Biblical times. In the story of Samson, for example, the hero's mother is cautioned: 'Behold, you are barren and have no children; but you shall conceive and bear a son. Therefore, beware, and drink no wine or strong drink ...' (Judges, 13:3-4).

A researcher in the Discipline of Reproductive Medicine, Dr John Falconer, is investigating the mechanisms by which the consumption of alcohol during pregnancy causes birth defects.

By means of studies carried out on sheep, Dr Falconer has shown that when sheep are given alcohol the blood flow to the placenta is inhibited and the supply of glucose to the fetus is reduced.

Dr Falconer will present information about the work he has done to the 15th meeting of the Society for the Study of Fetal Physiology Conference from July 12 to 16 in Cairns this month.

Dr Falconer talked to UNINEWS about the project.

The detrimental effects which the consumption of alcohol

during pregnancy have on the fetus include growth retardation, developmental abnormalities and mental retardation.

'Although these effects are recognised the mechanism by which alcohol induces them is poorly understood.'

Possible mechanisms which had been suggested, he said, were: fetal hypoxia, reduced placental nutrient transport, maternal malnutrition and direct toxic effects of alcohol.

To investigate which of the mechanisms might be responsible, seven Corriedale ewes were studied at 120 to 130 days of pregnancy.

Blood flow to the placenta was measured. Samples of blood were collected from the artery and vein supplying both sides of the placenta before, during and after an infusion of ethanol into the maternal jugular vein. Samples were collected before the alcohol infusion was started, during the infusion and after the infusion was stopped. Samples were analysed for blood gases and glucose.

Dr Falconer established that blood flow decreased on both sides of the placenta after maternal alcohol infusion. There were no

changes in blood gases during, or after, maternal alcohol infusion.

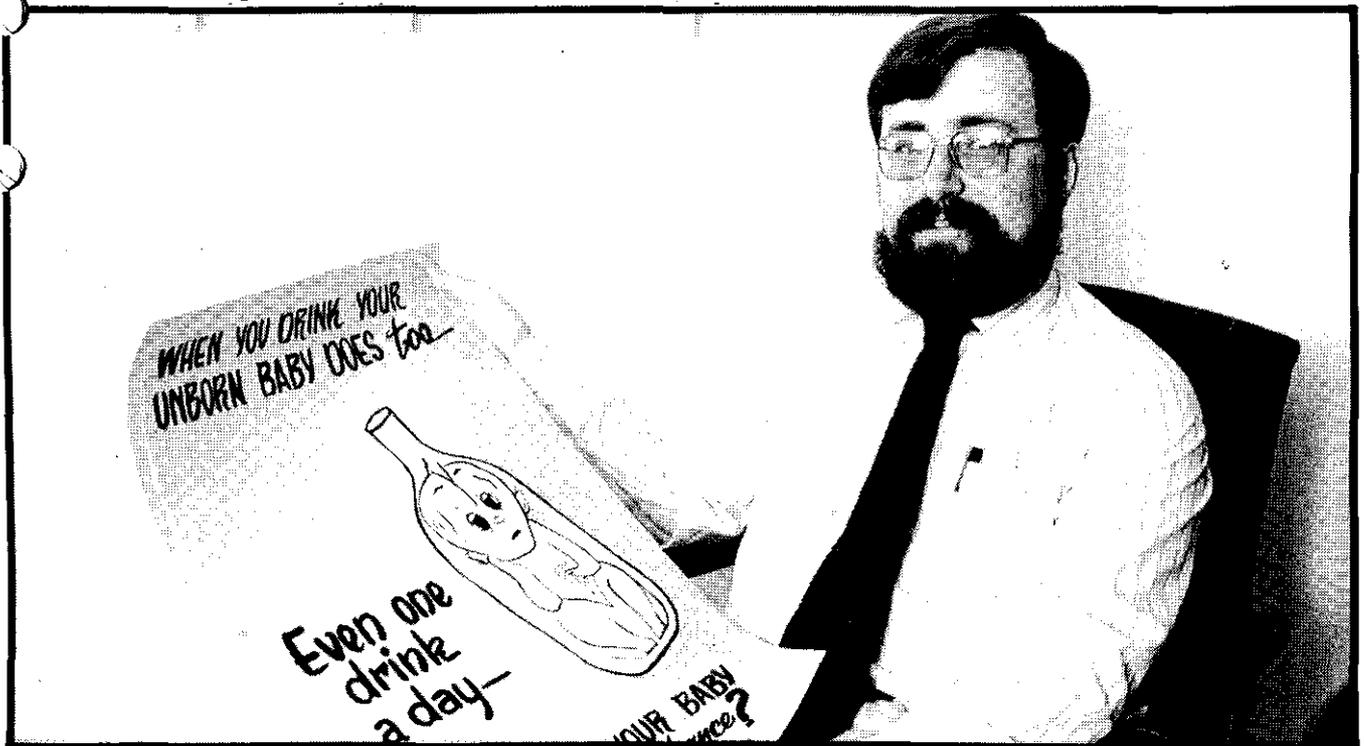
Fetal plasma concentrations of glucose were unchanged by maternal alcohol infusions, although maternal plasma concentrations of glucose decreased slightly.

Glucose delivery to the fetus was decreased by maternal alcohol at the end of ethanol infusion. This reduction in glucose delivery was maintained after the infusion was stopped.

Fetal glucose consumption was also reduced by ethanol, after ethanol infusion, Dr Falconer said.

These results demonstrate that maternal ethanol inhibits placental blood flow and reduces the supply of glucose to the fetus. In addition to reductions in supply of glucose, alcohol also reduces fetal glucose consumption. The detrimental effects of alcohol may be due to both direct effects on the fetus and indirect effects by alterations in placental blood flow.

Dr Falconer has submitted an application to the National Health and Medical Research Council for a grant in connection with the continuation of his research.



● Dr John Falconer: Investigating mechanisms by which alcohol consumption during pregnancy causes birth defects.

# Data from asbestos mine

**American geologist, Dr David O'Hanley, is visiting the University for three months until early July.**

The purpose of his visit, which is sponsored by the Senate Research Committee, is to assist Dr Robin Offler, of the Department of Geology, in his studies dealing with the movement on the Peel Fault.

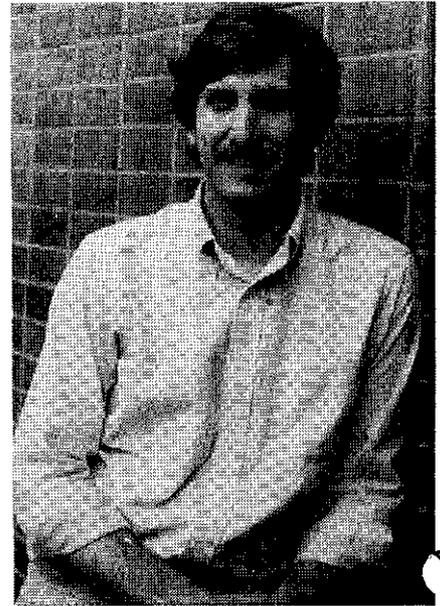
The Peel Fault is a major lineament in New South Wales, which played a key role in the geological evolution of New South Wales approximately 300 million years ago.

Dr O'Hanley will spend part of the time in the field with Dr Offler at Woodsreef, near Barraba, New South Wales, obtaining data from a former asbestos mine. The remainder of the time will be spent carrying out detailed microscopic X-ray diffraction and electron microprobe studies on samples collected in the field.

An analysis of the Woodsreef chrysotile asbestos deposit will result in constraints on the movement of the Peel Fault. This, in turn, will aid in the formulation of models that describe the geologic evolution of New South Wales as it existed at the time the fault was active.

Dr O'Hanley received his PhD in mineralogy from the University of Minnesota, USA. He is currently a Postdoctoral Fellow in the Department of Mineralogy of the Royal Ontario Museum, Toronto, Ontario, Canada. His research centres on the characterisation and origin of chrysotile asbestos deposits.

While in Australia, Dr O'Hanley will give lectures at the Universities of Newcastle, New South Wales and Wollongong.



● Dr David O'Hanley

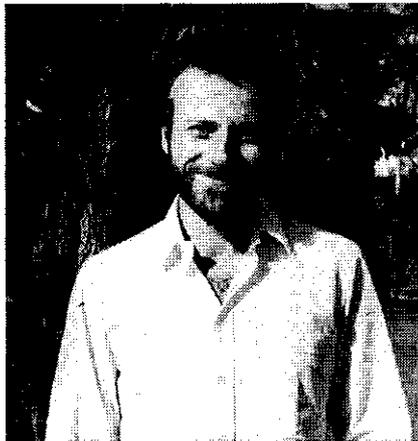
## Looking forward to collaboration

**An Austrian geologist has taken advantage of an Austrian Government visiting fellowship to work in Newcastle with Professor Ian Plimer, Head of the University's Department of Geology.**

Dr Oscar Thalhammer lectures at the Mining University of Leoben. He said that since he first met Professor Plimer at a conference at his university he had looked for an opportunity to collaborate closely with him on research.

'Ian Plimer is one of the most important geologists working today in the field of metamorphic rocks and he strongly supported my intention to study with him,' Dr Thalhammer said.

Professor Plimer's and Dr Thalhammer's shared research focuses on rocks which originated deep in the earth and which, while



● Dr Oscar Thalhammer

undergoing different conditions of temperature and pressure, collected important minerals.

An interesting feature of the collaboration between the geologists will be that Dr

Thalhammer will carry out field work in the Tibooburra area of western New South Wales.

'Tibooburra has been a gold-mining town for at least the last 100 years,' Dr Thalhammer said, 'and I will have a close look at the rocks to try to learn how the gold was formed.'

'Not only will the knowledge be helpful to geologists and gold prospectors, but it will also help with my investigations into the gold deposits in the Central European Alps.'

Dr Thalhammer studied geology and mineralogy at the University of Graz, graduating with a PhD degree in 1982. His wife, Beatrix, and daughter, Martina, will join him in Newcastle shortly. The tenure of the visiting fellowship is one year, with a possible one-year extension.

TUNRA Ltd was incorporated in 1969 as a Company Limited by Guarantee by the Council of the University of Newcastle, to offer a broadly-based research and specialist education service to industry, commerce and the community.

TUNRA's Board of Directors are all current or former members of the University Council or academic staff.

TUNRA is financially self-supporting and does not receive Government grants or subsidies.



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# Engineering/Science complex ready in 1989

Work on the new Engineering/Science Building is proceeding very satisfactorily and it is expected to be ready for use by Semester I next year.

Being built at a cost of \$6 million approximately, the four-storey building will house new facilities for the Faculties of Engineering and Science.

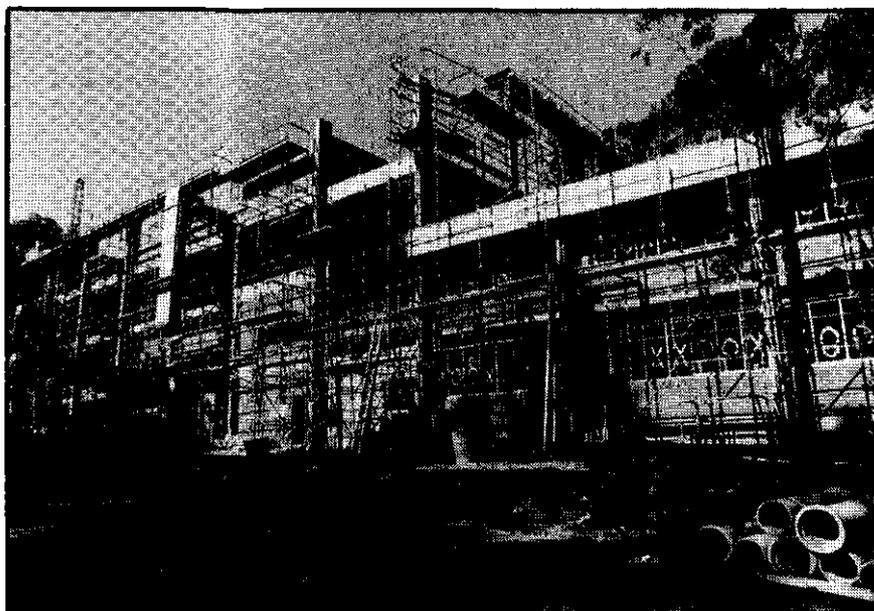
The building will allow a re-allocation of space in the various Science buildings on the campus. After alterations are carried out, improved facilities will be available for teaching and research.

At the western end of the Engineering/Science Building, two large laboratories are being constructed to house first year classes in Chemistry, Biology, Physics and Geology.

Levels II, III and IV of the building will accommodate new facilities for the Faculty of Engineering.

A major feature of the building will be the extensive computer facilities provided, including a room on Level II which will house 20 terminals and remain open after normal hours.

On Level III, the facilities will include a laboratory housing 40 microcomputers and a room providing 18 stations for the CADMAN system.



● The Engineering/Science Building 'under construction

Two stepped lecture theatres, with seating for 100 people and 75 people, are being constructed on Level II, together with a number of classrooms holding 50 or 60 students.

Another feature is the astral observation platform on the roof, which the Surveying Section will use.

The design provides toilet facilities for disabled people on each floor level which are

accessible by use of the service lift and ramps at the front and rear entrances.

The building, which is being constructed by Leighton Contractors Pty. Ltd., will provide a total of 3,700 sq metres of additional floor space.

A paved courtyard will be developed between the new building and the adjoining engineering buildings EA and EF.



## Father and son meet 8,106 kms from home



● Student Youyi Wang with his father Zu Cheng Wang during the University visit. (Photo: Courtesy Newcastle Herald)

A meeting between father and son was part of a visit to the University by a delegation from the People's Republic of China on June 14.

The visitors are associated with the development of a management training centre at the Wuhan Iron and Steel University in China and whilst at the University met the Vice-Chancellor, Professor Keith Morgan, and members of staff from the Department of Management.

The delegation comprised Zhu Cheng Wang, Director of the Department of Education, from the Ministry of Metallurgical Industries (team leader); Shiquiang Gu, Vice-President of Wuhan Iron and Steel University; Yisheng Lin, Deputy Division Chief, International Co-operation, Foreign Affairs Department of the Ministry of Metallurgical

Industries; Han Ying Tao, Deputy Director of the proposed AIDAB-China training centre and Shan Ma, Assistant Lecturer at Wuhan Iron and Steel University.

At the request of the visitors, a special meeting was held with students from the People's Republic of China who are enrolled at this University. One of the Chinese students is Youyi Wang, Zhu Cheng Wang's son. Youyi is here as a master's student in Electrical and Computer Engineering.

The training centre at the Wuhan Iron and Steel University is being developed for personnel in management capacities in the iron and steel industries in Wuhan with assistance from the Australian International Development Assistance Bureau, which arranged the study visit to the University.



# Ten years of innovation

**A 'celebration' of the first 10 years of the Faculty of Medicine will see top speakers reviewing and evaluating the Faculty's innovative programme of medical education.**

The 'celebration' is to be held at the University and the David Maddison Clinical Sciences Building between August 30 and September 16, with the themes *Learning about the Newcastle Approach, Review and Evaluation of the Newcastle Experience and Priorities for the Future in Newcastle.*

Many people from around the world have expressed interest in the workshops, lectures and meetings and participants have begun to register.

The Faculty has appointed a co-ordinator for every event on the programme and they are working hard to ensure attendances as large as possible.

Dr Donald Lindberg, Director of the National Library of Medicine, USA, Dr Tamas Fulop, Director of Health Manpower Development, World Health Organisation, and several other distinguished overseas guests will be present.

The Commonwealth Minister for Aboriginal Affairs, Mr Gerry Hand, has been invited to officially open workshops on Aboriginal Health.

The 'celebration' will provide a rare opportunity to unite former students and former staff of the Medical School, who have been invited to attend reunions and workshops.

Included is a formal event which was inaugurated last year and which involves overseas visitors as well as members of the Faculty and the Hunter community. This is the David Maddison Lecture, which honours the late Foundation Dean of the Faculty. Dr Lindberg will give the lecture on September 7.

The Dean of the Faculty of Medicine, Professor John Hamilton, reflected that the Faculty of Medicine was established in 1973, acquired its first staff in 1975, accepted its first cohort of students in 1978 and produced its first graduates in 1982. He said the 'celebration' was being held for a number of important reasons as well as providing a commemoration of the Medical School's first 10 years. By drawing together the University, the community and guests from Australia and overseas for

*"In the Beginning ...."*



● The Foundation Dean of the Faculty of Medicine, the late Professor David Maddison, Mrs Sue James and Mr John Birch were photographed on the verandah of the temporary Faculty of Medicine building in 1975. At the time the Faculty consisted of only them. The Faculty made the first academic appointments shortly afterwards and enrolled its first students in 1978. Professor Maddison directed a small, innovative and educationally dedicated foundation staff, who planned and developed the medical education programme. The Faculty took possession of its on-campus building in February, 1978 and produced its first graduates in 1982.

... and Today



workshops and meetings an opportunity would be given to take stock of the experience gained and the lessons learnt and choose priorities for the future. 'We want people to come and get a clear vision and understanding of the Medical School — warts and all.'

The roll-call of activities planned includes:

- A 'review' day, September 7, during which a series of expo-type media displays will cover the philosophy and development of the Medical School emphasising such aspects as the history, the admissions policy, the life of a medical student and what Newcastle graduates are doing today.
- A two-day seminar on Medical Informatics and Information Management Systems (September 8 and 9), with the goal of reviewing how computerised technology contributes to information management for all levels of personnel in relation to medical education, clinical practice,



Professor Hamilton

Mr Murphy

administration and research and focussing on major trends which should offer benefits for tomorrow.

- An Ethics Conference on September 9 and 10, organised by the Faculty in partnership with the Department of Philosophy, with the aim of keeping going the momentum of the 1987 David Maddison Lecture, which explored ethics and the allocation of health resources.
- The Aboriginal Health Conference (September 14 and 15), providing Aboriginal medical students and doctors

with a platform and involving discussions on such topics as selection of Aboriginal medical students, teaching Aboriginal doctors and considering where Aboriginal doctors now work.

- A workshop on Human Sexuality (September 15 and 16), providing a forum to examine where sex education is headed within the community and emphasising problems such as AIDS and the philosophical issues raised by these problems.

Professor Hamilton said the Faculty was particularly interested in the gatherings for former students and faculty. They have been invited to take part in the celebrations. Faculty members who have moved on to new positions will describe the value of their experience in Newcastle for their new role.

Mr Brooke Murphy (telephone 26 6814) is Overall Co-ordinator for the tenth anniversary celebrations.



# Biography of a prolific writer

**Few Australian writers have the breadth and scope of interests possessed by Jack Lindsay, eldest son of Norman Lindsay, and even fewer have been as prolific. This is the opinion of his biographer, Mr Robert Mackie, of the University's Department of Education.**

'Lindsay is an expert translator, especially of classical languages, a fine novelist and sensitive poet. As well he has written on European and ancient history, modern literature, culture, politics and art. Indeed, a most fertile mind,' Mr Mackie said.

'But, perhaps most astonishing is the sheer volume of his output — some 150 books in all! Acquiring, and reading them is a major task in itself,' he added.

Research into Jack Lindsay's life, publications, friends (and foes) has been in progress for some four years now. It has taken Robert Mackie to Britain, Europe, many parts of Australia, and involved extensive research in America and the Soviet Union. He hopes to conclude his work for publication within 18 months.

Born in Melbourne on October 20, 1900, Jack Lindsay was the first son of Norman Lindsay, then a budding cartoonist, and Katie Parkinson, member of a prominent Melbourne family.

## 'The most interesting' of the Lindsay family

When Norman obtained work on *The Bulletin*, the family moved to Lavender Bay on Sydney Harbour. Despite these idyllic surroundings young Jack's childhood was not happy, and his parents agreed to separate in 1907.

Moving to Brisbane with his mother and family, Jack Lindsay won a scholarship to Brisbane Grammar School and a further award took him to the University of Queensland. There he performed brilliantly, graduating with a first-class degree in classics and editing the student magazine *Galmahra* as well. Queensland University was a small — some 200 students — but lively place in those 'great war' years. Lindsay befriended V. Gordon Childe, Eric Partridge and 'Inky' Stephenson at this time — all of them distinguished in different areas of Australian cultural history.

Graduating in 1920, Lindsay moved to Sydney and worked, intermittently, on *The Bulletin* with his father who was by now Australia's best-known and most controversial artist. Working

mainly as a poet, Lindsay helped to form *Vision* magazine, and with Kenneth Slessor, edited *Poetry in Australia* (1923) the first anthology to challenge the bush-ballad tradition in Australian poetry.

Australian culture in the 1920s was both thinly spread and narrowly circumscribed. And for the young Jack Lindsay, impatient with its constrictions, the lure of cosmopolitan London was irresistible. So he went in January 1926, never to return.

Settling in Bloomsbury he published fine press limited editions until the depression years closed his company down. Writing then became Jack Lindsay's sole means for earning a living. It also brought him into contact with many eminent literary figures: — Aldous Huxley; Robert Graves; D.H. Lawrence; C. Day Lewis; Stephen Spender; Edith Sitwell; and Dylan Thomas to name just a few.

Despite more than six decades of life away from Australia, Jack Lindsay retains a vivid memory of his origins and their importance.

Robert Mackie claims 'he is a great and unknown polymath. And of all the members of this eminent family, Jack is, without doubt, the most interesting Lindsay'.

# Appointed to Surveying authority

**ASSOC. PROFESSOR JOHN FRYER, Director of Surveying Studies, has been appointed a member of the Board of Surveyors of New South Wales.**

The Board, set up under the auspices of the Surveyors Act, 1929, has statutory powers to cite, and take legal action against, members of the profession, or public, who are not working in accordance with the rules and regulations governing the 'proper' surveying of land.

The Board is also responsible for establishing and maintaining the criteria for registration as a Registered Surveyor in New South Wales.

This involves the conduct of six-monthly examinations in a range of topics such as town planning, urban engineering and rural and urban cadastral surveying. Graduates of surveying with two years appropriate experience may present themselves

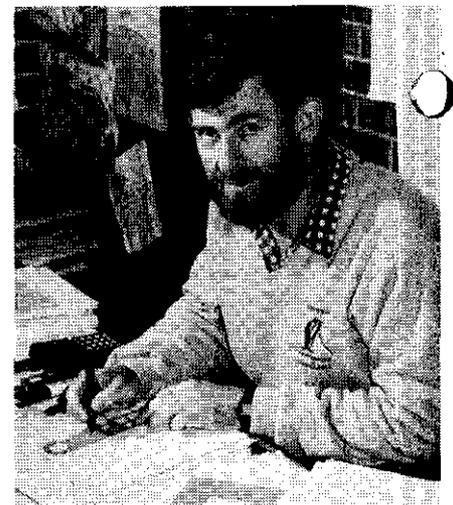
for the examination. Successful candidates receive a 'Certificate of Competency' and are thereafter licensed to undertake work leading to the depositing of plans with the Land Titles Office for the purpose of local subdivision, etc.

Professor Fryer has only attended a few Board meetings thus far, which are held monthly in Sydney, but has been impressed by the wide range of activities which the Board encompasses.

It is the first time an academic from the University of Newcastle has been appointed to the Board; for the previous 25 years the Professor of Surveying at the University of New South Wales, or his nominee, has been the 'academic' appointee.

The Surveyor-General of New South Wales, Mr Don Grant, is Chairman of the Board.

Professor Fryer believes his appointment reflects the growing stature and status of the BSURV



● Professor John Fryer

degree in Newcastle. He enjoys the meetings despite the considerable extra workload which accompanies it.

He has been appointed for a two-year term of office.