



# CHIRON

The 1983 Newsletter of the  
Melbourne University Medical Society

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### Front cover

Professor Emeritus Sir Douglas Wright

### Back cover

Anthony Colling Brownless as a young man, 1844.

### University of Melbourne Medical Society

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### Invitation from Editor

#### Correspondence

Although the interval between issues of *Chiron* will make brisk exchanges between correspondents impossible, at least during its first year or two, we welcome views, comments, suggestions, even criticisms from our readers. We undertake to publish those of particular interest and as many as space permits. There should always be room for wit, wisdom, wails, winges, woes, welladays, wheedles, whiles and whispers, and when possible, a reply to your letter.

*The Editor*

### Acknowledgements

Mr A.R. Rainer of the Melbourne University Information Office. Photographs and extracts courtesy of *Staff News* and the Medical History Unit.

## XIPON the Centaur



Attic black-figured amphora (detail), about 500 B.C., Munich, Staatliche Antikensammlung.

After much discussion, and having learnt that *The Centaur* was already pre-empted in the name of a veterinary publication, *Chiron* has been chosen as the title of the newsletter of the University of Melbourne Medical Society. The choice was naturally determined by the recognition of Chiron in classical Greece as the master, and teacher, of all the healing arts. But the origin and meaning of Chiron as a symbol, is of much greater antiquity, and the evolution of centaurs, including their contradictory aspects, is worth recounting in the first issue of what, it is hoped, will become a regular publication aimed to keep Melbourne medical graduates in touch with their parent faculty, and with each other as their divergent professional interests take them into widely separated areas of medicine.

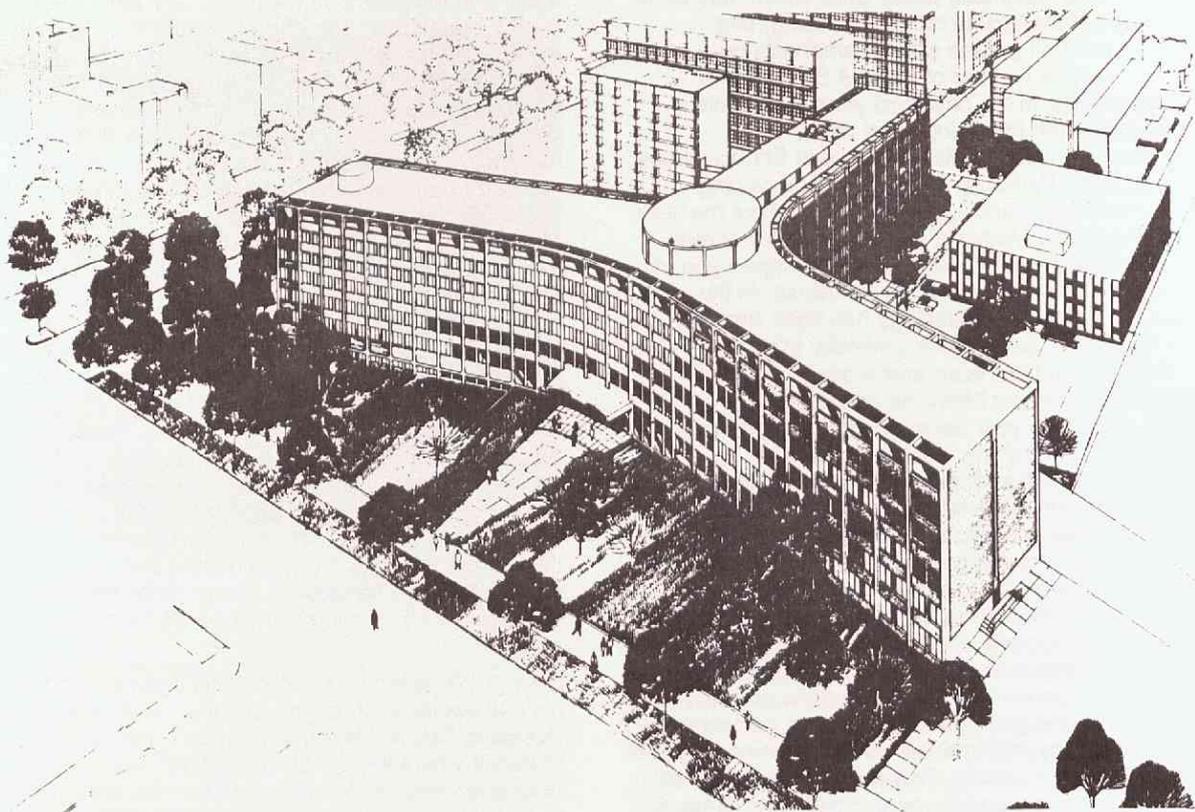
The centaur is one of the most ancient and intriguing 'monsters' in Greek mythology. The concept of a creature half-man half-horse may well have arisen from a folk memory of the first appearance of a mounted man on 'Greek' soil, perhaps as early as the second millennium B.C. That a centaur could be the misconception of an observer hitherto unaware of the existence of the horse, is born out by the awestruck response of natives of meso-America to the mounted men who reached their shores with Cortes in 1519. Tlascalcan allies and Aztec enemies alike, imagined that rider and mount formed one monstrous creature which was obviously supernatural and presumably invincible.

The evolution of the horse from the dog-sized Eohippos to the single toed *equus caballus* took place over millions of years, and exclusively on the American continent. From the Tertiary period to the end of the last Ice-age, waves of equine prototypes crossed into Asia by way of an ice-bridge across what are now the Behring Straits. Before the Palaeolithic period at least four prototypes moved into Central Asia north of the Himalayas, across Europe and down the Iberian peninsula. The cave paintings at Lascaux and Les Combarelles show a primitive type of horse, primarily as a source of food and, not surprisingly, the date and place of its domestication in Europe, if any, have not been identified.

Somewhere between the Caucasus and the Caspian, the Mesopotamian wheel was wedded to the ox, and the harness developed for a four wheeled ox-cart was probably transferred to the horse where and when 'ox-cart men' encountered mounted Central Asian horsemen. The two wheeled chariot evolved in the second millennium B.C. and spread from the Iranian plateau southwards into Egypt, and westward across Asia Minor to the Aegean and the Mediterranean littoral. The chariots and their accoutrements found in Mycenaean tombs of about 1750 B.C. are described as almost identical with those of the contemporary Shan dynasty in China. Did the chariot reach Mycenae by way of Egypt and Crete, while the single mounted man entered the Greek world from the northeast? It may be as recently as 1500-1000 B.C. that a farmer looked up from his field near the coast of Magnesia, to be confronted by an unimaginable creature. Perhaps the mythical centaur was born in that moment of incredulity and misinterpretation, and it may be no coincidence that the home of the centaurs, and their enemies the Lapiths, was set in Thessaly, the nearest 'Greek' territory to the Steppes of Central Asia.

It is understandable that an awesome and hitherto unknown creature should be accorded godlike powers, among them the mysteries of healing illness. As the ceramic bowl at the head of this article shows, in early Greece around 800 B.C. Chiron, the most "righteous" and beneficent of the centaurs, is not depicted with a bow and arrow; these are believed to be later accretions of Asian origin, said to be Babylonian and possibly the symbol of one of the suburbs of that city. The 'suburb' symbols are thought to be perpetuated in the signs of the zodiac, which became part of Babylonian astrology incorporated in Greek astronomy at a later but undetermined date. In Latin this figure was Sagittarius, and it may be significant that he is named for his weapons, not his centaurian form.

*(Continued, page 15)*



## The Melbourne Medical School 1983

The decision to seek closer contact between the Faculty of Medicine and its graduates is, in the view of many of us, long overdue. As Australia's senior medical faculty, we have had a special place in the history of medicine in this country, and changes in the character of the School in the past twenty years have played a particularly important role in bringing Australian medicine to its present high international standing. We now eagerly seek the collaboration of our former students and colleagues in the next stage of our development.

The history of the Melbourne Medical School has been well documented by Professor Ken Russell. I will simply highlight a few of the major developments which have come with the past twenty five years to give a thumbnail sketch of how we have changed and the directions of our present development. Younger graduates will have been part of these changes whilst more senior ones will have watched them from afar.

The period of deanship of Sir Sydney Sunderland represented a very important phase in the evolution of this medical school with the establishment of a large number of clinical academic chairs and departments, the grouping of the campus departments in the south-west corner, and the building of the new medical centre fronting onto Grattan Street. In the hospital scene, clinical sciences buildings were erected and a new clinical school was established at the Austin Hospital, later to incorporate the Repatriation General Hospital. The expansion of the medical school, which this represented, gave an opportunity for growth in staffing, strengthening of research and clinical specialties, and the housing of the Faculty in its present fine accommodation. Little of this could have been achieved without Sir Sydney's contributions as Dean, as a member of the Australian Universities Commission and in his many other roles in the community.

During the seventies, under Sir Lance Townsend, changes were made to the undergraduate curriculum which effectively split the course into three preclinical years followed by three clinical years. A small medical component was introduced into the first year. The Department of Community Health was established with its Chair, and formal general practice teaching commenced for two weeks in the fourth year of the course. Flexibility was introduced into the course with a period of options in the final year, and at the same time further clinical chairs were established with developments at Repatriation General Hospital, a Chair in Clinical Pharmacology at the Austin, the Research Foundation Chair at the Royal Children's Hospital, and the Chair of Gerontology and Geriatric Medicine at Mount Royal. During this period, major administrative changes in the University led to the devolution of budgetary responsibilities to the Faculty, and research funding grew, principally from the National Health and Medical Research Council.

Over the past five years we have evolved steadily in a number of areas. In the undergraduate field we have introduced changes to both the preclinical and the clinical section of the course. There is now a substantially greater medical component in the first year which gives students an opportunity to identify with the profession early on; this has been a great success. The first year includes Anatomy, some Physiology, further development of Behavioural Science and also First Aid as a compulsory subject. Students visit hospitals, and a general practice, at some stage during this year. In the second year of the course the subjects of Anatomy, Physiology and Biochemistry are completed and the anatomy and physiology of the nervous system are now jointly taught in the subject Neuroscience. Medical psychology is taught during this year as Behavioural Science II. During this year, students get their

first chance to take Advanced Study Units which may be in any department of the faculty of their choosing, and students work in small groups with an emphasis on independent study. A number of these A.S.U.'s are in clinical departments. In the new third year, Biochemistry contributes jointly with Physiology and the clinical disciplines in a new subject Metabolism and Endocrinology, and the subjects of Pathology, Microbiology including Immunology and Pharmacology extend throughout the year. Social and Preventive Medicine is taught in the first term and this is a subject which is still being developed and in which a number of outside lecturers contribute. In the clinical years, Clinical Pharmacology has been brought forward to the fourth year to give continuity from Pharmacology in the third year, and a sound basis of clinical skills and of basic Medicine and Surgery is established, the whole year being spent in the general teaching hospitals (including affiliated hospitals). The teaching of Paediatrics and of Obstetrics and Gynaecology takes place in the fifth year as before but the major examination in these subjects is also held at the end of the teaching semester. Psychiatry continues to be taught in the other semester in fifth year jointly with experience of casualty work, infectious diseases, anaesthetics, general practice and other aspects of community medicine and geriatrics. Examinations are also held in this semester. The new final year comes in in 1983. The Options period is retained and something like half our students go overseas for experience during this time; others go to the country and see practice outside hospitals. Following this, they will be occupied with Medicine and Surgery including a range of specialties in the general hospitals and will be heavily involved in patient care. The emphasis will be on management of patients rather than revision for examinations, so that the students will have a better chance to prepare themselves for the demands of practice which they will face on graduation. The final clinical examinations will be held in the wards of the students' own hospital to facilitate this emphasis on practical patient care.

The objectives of the medical course which were adopted in 1978 include a commitment for us to prepare students for continued independent learning. This commitment has implications for the manner in which teaching is conducted throughout the course and discussion with departments about their approach to teaching will continue over several years. Medical knowledge has, of course, expanded enormously over the past twenty years and there has been inevitably a tendency to push a great body of factual information at the students with a requirement that they learn this and have an ability to reproduce it in examinations. However, the medical knowledge of 1983 will certainly be out-of-date in another five or ten years, and unless students have understood how information is derived and may be gleaned, and how to use it in solving clinical problems in the care of patients, no amount of factual learning will guarantee that we have good practitioners ten years out of medical school. The Curriculum Review Committee of the Faculty has played a major role in the development of changes in the curriculum and in teaching attitudes and it is hoped that by placing more emphasis on problem solving, and learning to use literature appropriately, our graduates of the future will be strongly motivated to participate in continuing medical education.

A further major area of development in recent years has been the acceptance by Faculty of a commitment to both professional postgraduate education and to continuing education. A new Master of Medicine degree has been established which can be taken by course work in a number of disciplines or by research and runs in parallel with the programmes of the clinical colleges.

It is intended that this should provide a vehicle both for Australians and overseas graduates seeking specialist

training in Melbourne in the many very well developed clinical specialties; it is also of interest that we are offering masters programmes in Primary Medical Care and in Geriatrics. Part II of the masters course can be entered by people who have passed the Part I examination of the Colleges of Physicians, Surgeons or several other relevant Colleges, and provides an academic background to specialist training. It can also be taken by research over twelve months as part of a College training programme. The Master of Surgery degree has also been changed to allow trainees in the advanced programme for the College of Surgeons to undertake a year's research as part of their training. The Master of Gynaecology and Obstetrics continues to be offered, but will be increasingly taken by research, and the Doctor of Medicine remains the higher doctorate of Faculty available to people in all medical disciplines on submission of a thesis representing a major piece of research which has contributed to medical knowledge. We also have many candidates for the Ph.D. degree in both preclinical and clinical departments. There has been rapid growth in our higher degree activities over this period, which is likely to continue and is set to contribute to the Melbourne faculty being recognised increasingly as an international centre for postgraduate study.

Growth in research, in publications and funding from outside bodies such as the National Health and Medical Research Council, has been steady in the past five years to the point where we are clearly ahead of our competitors in Australian medical schools and other faculties within the University of Melbourne. In a period of contracting resources, such as we have faced since 1975, it has not been easy to reallocate funds so as to support important new developments but, nonetheless, a significant reorientation has been achieved. A number of important initiatives have been undertaken both in research and teaching and substantial support has been given to encourage the development of research in various areas. We have taken steps to encourage closer links with the prestigious research institutes affiliated with the Faculty, and when we look at this larger grouping, we have in Melbourne a notable concentration of research and professional expertise by international standards.

The students we attract are of very high calibre indeed. Not only are they academically outstanding but, I am glad to say, they have a very fine record in personal relationships and in patient care. With growth of our higher degree numbers, and with emerging evidence of an oversupply of doctors, we have decreased the intake into the course by forty per year in recent years, allowing us to concentrate on better teaching of the smaller number of students.

The Dean's Lecture Series has been a successful venture over the past two years and we look forward to its continuing support by students, staff and graduates. Unfortunately it is not possible to find a time which will suit all, and lectures at 5.15 p.m. on a Monday evening are clearly inconvenient for most general practitioners. I can only apologise for this, but we do have a large audience who will not regularly come at a later hour. We hope that all who can will attend, and participate in discussion, and by this means help bridge the gap between students, their teachers and the body of graduates. We will be arranging other evening meetings at a later hour which should be more appropriate for practitioners and we hope we will attract some students and staff members to take part in these.

Faculty is on the move in a number of areas and we welcome both constructive criticism and your participation in these changes through the Society.

*D.G. Penington*



UMMS Meeting, 13 September 1982. Dr Frank Forster, Dr John Biggs, Dr Charles Biggs and the guest speaker Professor Garrick Chambers of the Department of Botany, University of Melbourne.

## Why Another Medical Society?

With the ever-increasing commitments of our time and energies, it is reasonable to ask "Why another medical society?"

Over the past several years, many graduates have asked for more communication from their Alma Mater, wishing to be kept informed of new developments in the Faculty and University, as well as seeking opportunities for educational and social interaction with their colleagues. The University in turn realises the importance of fostering graduate interest in the activities and aspirations of the University.

In a special issue of *The University of Melbourne Gazette* early in 1982, Dr. Davis McCaughey talked of "building bridges" between graduates and the University: "Most bridges carry two-way traffic. In the next few years we expect to see more graduates take advantage of what the University has to offer and we may also find graduates contributing important experience to the academic life of the faculties and departments."

Over the past couple of years, a group of graduates connected with the Medical Faculty has discussed the possibility of forming a medical graduates society to promote the kind of interaction described by Dr. McCaughey. The inaugural meeting of U.M.M.S. was held in April 1982. At this meeting Professor Emeritus R.D. Wright was elected as Foundation President. A small Steering Committee was also formed, under the Chairmanship of Professor David Penington. This committee worked on the Constitution of the Society which was then adopted at the second meeting of the Society in September 1982.

## Aims of UMMS

This is a provisional list of aims for the Society. If you have any other ideas as to what the Society should do, please write to Dr. Jeannine Paton, Honorary Secretary, Melbourne University Medical Society, Faculty of Medicine, Parkville, Vic., 3052.

- 1 To interest those associated with the University of Melbourne Medical School (that is, graduates, staff, friends) in the activities of the University of Melbourne and particularly the Medical Faculty.
- 2 To act as a source of information about postgraduate educational opportunities.
- 3 To facilitate input by the medical profession into the Medical Faculty and the University — ideas about curriculum, postgraduate courses, etc.

The Society is now in existence and is already having a significant impact in providing information to interested graduates about the University, the Medical Faculty, Continuing Education programmes, the Dean's Lecture Series, class reunions (the 10th, 20th and 50th reunions for 1983 are already being planned) and so on. The 1983 Annual General Meeting is scheduled for 6.30 p.m., Monday 18th April in Theatre 1, Medical Centre Building, immediately after the first of the Dean's Lecture Series.

Accompanying this first issue of the Society's Newsletter, you should receive pamphlets detailing the Dean's Lecture Series and the Faculty's Continuing Education Programme for 1983. Financial members will later receive advance notice of other activities during the year.

Also accompanying this Newsletter you will find a Notice of Annual General Meeting to be held on 18 April 1983 and a membership subscription form for 1983. To make sure that you are kept informed about the Society and the University, register your membership as soon as possible.

The University's newly created Graduate Secretariat will be liaising with U.M.M.S. in keeping up-to-date the records it holds on graduates listed on the University's Postal Roll. If you are not on the Roll you may wish to return the provided form so that the University will include you in future advice.

- 4 To encourage and facilitate social interaction of graduates — assistance in organization of reunion dinners, for example, 10, 20, 25, 30, 50 year, etc, as requested by members of these years\*.
- 5 To arrange regular social and scientific functions for members of the Society.
- 6 To publish a regular newsletter of the Society.

\* Intending organizers of any year reunion are invited to consult Dr. Jeannine Paton (address as above). The Society office can provide you with lists of graduates in each year, along with up-to-date addresses. Assistance was provided for the 25th year reunion in 1982. This was held at University House and was a great success.

## The Foundation President of UMMS

Remarkably soon after his election as Foundation President of the University of Melbourne Medical Society, Professor Emeritus Roy Douglas Wright was made a Knight of the Order of Australia. This can be no coincidence. Of course Society members recognise that Sir Douglas is a man of many achievements and has been honoured in many ways. But it is satisfying to know that it was his Presidency of UMMS that triggered this very public recognition of his services to medicine and education.

Sir Douglas's career is summarised in this extract from the *University Staff News*, announcing the election of the new Chancellor in March 1980:

"The University of Melbourne Council has elected Professor Emeritus Roy Douglas Wright as the University's 16th Chancellor. He succeeds the Honourable Sir Oliver Gillard.

Professor Wright has had a long and distinguished association with this University since his undergraduate days in the late 1920s. He retired from the University as Professor of Physiology in 1971 and became medical director of the Cancer Institute, Peter MacCallum Clinic until 1975. He was a member of the Board of the Institute and Chairman of the Executive from 1948 until 1971. Professor Wright has been a member of the University Council since 1963 and a Deputy Chancellor since 1972.

He was involved in the establishment of the Australian National University and was a foundation councillor there for 30 years. He played an important part in the founding of the Howard Florey Institute of Experimental Physiology and Medicine. He has been a consultant to the Institute since 1975 and still works there. In 1968 he was a founding director of the Australian Kidney Foundation and moved to reconstitute the National Health and Medical Research Council in 1948.

Born in Tasmania, Professor Wright graduated from this University in 1929 with the Degrees of Bachelor of Medicine and Bachelor of Surgery. In 1932 he was Stewart Lecturer in Pathology and in that year was awarded the Degree of Master of Surgery. From 1934 to 1938 he was a Senior Lecturer in Pathology under Professor Sir Peter MacCallum and he was Surgeon to Outpatients at the Royal Melbourne Hospital. During this time he was one of the founders of the Victorian Society for Pathology and Experimental Medicine. His published work won him the David Syme Research Prize in 1937.

In 1938 and 1939 he worked at Oxford with the late Howard Florey and then returned to this University as Professor of Physiology.

During the war he carried out research for the Armed Forces and was on Field Marshal Sir Thomas Blamey's staff for three years. At different times during his career he was Dean of the Faculties of Medicine and of Veterinary Science."

It is particularly appropriate that Sir Douglas has become our Foundation President. For years he has been a vigorous advocate for promoting a much closer relationship between the graduates and the University. The foundation of UMMS had his strongest support, and he has written the following message for this Newsletter.

### President's message

Our Medical School is now heading towards its peak. All the departments, clinical, paraclinical and preclinical have standing at the international level. In many fields they are front runners. It is our aim that our people, our graduates and our recruits, should have the opportunity to know what



On 18 October 1982 the Minister for Science and Technology, the Hon. David Thompson (left) unveiled a commemorative plaque at the University's Department of Otolaryngology, watched by Professor Graeme Clarke and the Chancellor, Professor Emeritus R. Douglas Wright.

is being done in the school. This is the purpose of the Melbourne University Medical Society. It will arrange for meetings and for appropriate reading matter.

The meetings will be sometimes technical and sometimes social. It is not intended that the society will replace the long lived hospital groups, but will complement them by omnium gatherums. The aim is to show the school as a whole, and in the context of the University as a whole. In the University there are many people highly skilled in matters relevant to medicine: chemistry, physics, engineering, and others can be colleagues, if approached, on serious matters. The Society can help to find them and effect introductions. The libraries of the University are available to our graduates and other members of staff of our schools. And, as a *quid pro quo*, the University will be grateful for a chance to acquire, by gift or negotiation, out-of-the-ordinary books or journals, for example, I have been trying for twenty years to get Rolleston's *The Endocrine Organs in Health and Disease* and still want it. Our library does not have a copy.

And there is the matter of the public reputation of the School. Doctors are regarded by the community as objective, professional people. Our support from the public sector depends to a considerable extent on what doctors say about us. But in the private sector we depend even more on your support. Obviously the closer you are to the school, the more telling will be your opinion.

Above all these considerations is the fellowship of the alumni of an institution. The general gatherings of the society will bring its social rewards. Our records are getting better and better and are available to assist members wishing to organise year dinners or other such sectional gatherings.

In fact, we look forward to a new stage in the school where it looks to serve its people and hopes for their participation and support.

R. Douglas Wright

## Medical Faculty Departments

In each issue of the Newsletter, we will provide information about some of the departments of the Medical Faculty. In this first issue, the changes that have occurred in recent years in Anatomy and Surgery (Royal Melbourne Hospital) are described.

### Department of Anatomy

There have been dramatic changes in the Department in recent years. The setting for the latest phase in the academic development of the department was provided in 1968 by the move from the Berry Building to the new Medical Centre at the corner of Grattan Street and Royal Parade. It is worth recalling here that the Faculty owes this magnificent Medical Centre Building to the vision and tenacity of Professor Emeritus Sir Sydney Sunderland who was Professor of Anatomy from 1940-1961, Professor of Experimental Neurology from 1961-1975, and Dean of the Faculty from 1953 to 1971.

At the time of the move in 1968, the department had two professors, Les Ray (who was Chairman of the Department) and Keith Bradley. Other senior staff members included Ken Russell, John Lavarack, Neil Merrillees, Geoffrey Kenny, Peter Robinson, Bernice Stratford and Alex Roche.

Ken Russell was appointed to a Personal Chair in Anatomy and Medical History in 1969 and held this until his retirement in 1976. His book *The Melbourne Medical School 1862-1962* was published in 1977 and he has continued his active association with the Faculty's Medical History Unit, initially as Curator of the Museum and more recently as Honorary Professor.

John Lavarack and Neil Merrillees retired in 1979. A generation of graduates will remember the characteristic style of their teaching in Embryology and Histology.

Keith Bradley formally retired from the department in 1976, but has remained very busy, not only with his neurosurgical work but also on a part-time basis in the department, as a very popular undergraduate and postgraduate lecturer, particularly in neuroanatomy.

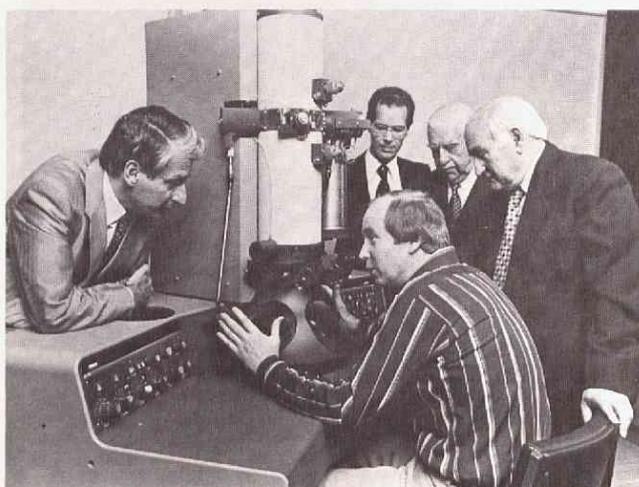
Les Ray was due for retirement at the end of 1982, but regrettably died in January of that year. His contributions to the Medical Faculty and the University were many and varied, including periods as Deputy Dean of the Faculty, and Chairman of the Ph.D. Committee, as well as his long Chairmanship of the Anatomy Department.

In 1978 the position of Professor of Anatomy, previously held by Keith Bradley, was accepted by Graeme Ryan who had recently returned to the Department of Pathology after several years in London, Geneva and Boston. This appointment brought a new research direction into the department with an expansion of the electron microscopy facilities and a strong emphasis on the investigation of renal structure, function and disease. Important collaborative programmes in this area are currently operating in association with the Howard Florey Institute, the Baker Institute, the Department of Physiology and the Departments of Medicine at the Royal Melbourne Hospital and Repatriation General Hospital.

Other research interests in the department also rely heavily on electron microscopy. Peter Robinson is investigating the development of endocrine systems. Bernice Stratford works on limb development and teratogenesis. In addition, Geoff Kenny (currently Deputy Chairman to Graeme Ryan) is continuing his work on the pineal organ, and Darryle Bowden runs the department's Child Growth Unit. Gordon Campbell joined the department from the Baker Institute in 1980 and has developed a Cardiovascular Research Unit, with a special interest in the pathogenesis of

atherosclerosis. Other new appointments within the past few years have been Norm Eizenberg (with research interests in student learning skills and teaching methods), Mary Wheeler (topographic anatomy), Chris Briggs (sports medicine) and Josephine Kavanagh who assumed responsibility for the teaching of radiological anatomy after the retirement of Cyril Chambers who did so much to develop this area for the department.

The most recent development has been the appointment in 1983 of Ian Darian-Smith, formerly Professor of Physiology, to the Chair of Anatomy previously held by Les Ray. With the transfer of Ian Darian-Smith and his colleagues, including Tony Goodwin, to Anatomy, an interdisciplinary Neuroscience Research Unit is now being established within the department, integrating neuroanatomy and neurophysiology and forming strong links with neuropathology as well as clinical neurology and neurosurgery.



Unveiling of new electron microscope in the Department of Anatomy with representatives from major donors: Professor Sir Gustav Nossal (Felton Bequest Committee), Sir Jack Brockhoff (Brockhoff Foundation) and Professor Emeritus Sir Sydney Sunderland (Potter Foundation).

The past few years have also seen extensive changes in the teaching activities in Anatomy. As a result of the introduction of the revised undergraduate medical curriculum in 1980, there is now a very significant input of Anatomy in First Year Medicine, with students dissecting the limbs and covering a lot of ground in Histology, Embryology and Genetics (the last taught by Professor David Danks and his colleagues from the Royal Children's Hospital). The Anatomy of the thorax, abdomen, pelvis, neck and head are studied in the first two terms of Second Year, along with the Histology and Embryology of the organ systems. The major examination in the subject (including the traditional oral examinations) are held at the end of second term.

Another important teaching development has been a very vigorous effort to emphasise the applied, clinically important aspects of Anatomy throughout the programme. Special Applied Anatomy, Surface Anatomy and Radiological Anatomy tutorials are integral parts of the course and students also practice diagnostic procedures (such as lumbar punctures, thoracic taps, etc) on the cadavers. The students are enthusiastic about the programme and their success rate is extraordinarily high (better than 99.5% passing the final examinations in the subject in each year since the new course began).

Also in the revised medical curriculum, neuroanatomy is now integrated with neurophysiology in a new subject called Neuroscience taught in the third term of Second Year. With

the transfer of Ian Darian-Smith to Anatomy, opportunities now occur for further teaching innovations including the introduction of additional clinically related material.

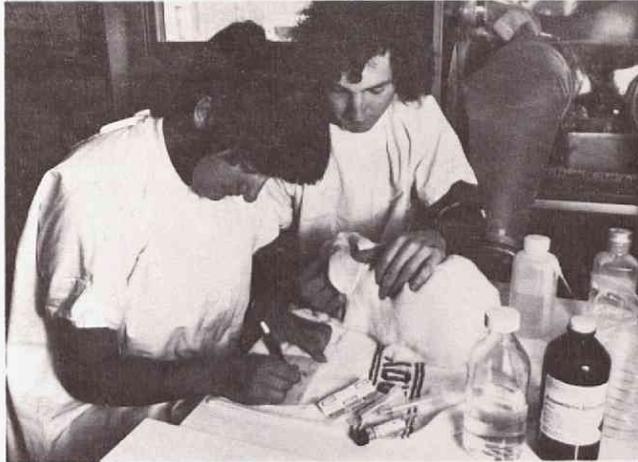
The department also provides Advanced Study Units for Second and Third Year medical students. In these units, students spend the equivalent of one afternoon per week involved in the more 'in depth' individual study of particular aspects of Anatomy, Histology, Embryology or Neuroscience. Special research projects are also offered in Electron Microscopy and Neuroscience.

There is a continuing input by the department in post-graduate teaching, for example in courses for postgraduate diplomas, including those of various Colleges and

particularly, in conjunction with the Royal Australasian College of Surgeons, in providing very successful Anatomy courses for the Part I and Part II College qualifications. The other very important function of the department in the postgraduate area, namely in research training, is seen in the growing number of science and medical graduates enrolled for Masters and Ph.D. programmes.

With the traditions established by Berry, Wood-Jones and Sunderland, and now carried forward with the changes that have occurred over the past fifteen years, the Faculty has an Anatomy Department that ranks very favourably in teaching, research and outlook with the best of Anatomy departments in Australia and overseas.

## Department of Surgery, Royal Melbourne Hospital



Studying the survival of skin grafts in rabbits.

The Department was established in temporary accommodation (the old Medical Superintendent's House) on the Royal Melbourne Hospital site with the definitive appointment of Maurice Ewing to the Foundation James Stewart Chair in Surgery in 1955. The move to the 5th and 6th floors of the Clinical Sciences Building (the first such in Australia) occurred in 1964, allowing the development of an integrated teaching and research facility, unknown in this country until that time. The Department established a reputation for the excellence of its teaching, and for major research contributions in the fields of surgical metabolism, organ transplantation and transplantation immunology. Three of the early staff members were appointed to Chairs of Surgery in other universities (Professor Ken Cox to the University of New South Wales; Professor Peter Morris to Oxford; and Professor Vernon Marshall to Monash).

Professor Ewing retired in 1977, and was succeeded late in 1978 by Gordon Clunie, then Professor of Surgery in the University of Queensland. The clinical interests developed early in the life of the Department have been extended, with responsibility being accepted for two-fifths of the general surgery of the Royal Melbourne Hospital, the Surgical Renal Transplant Service, the Burns Service, the Parenteral Nutrition Service and the Lymphoma Service. The Colorectal Unit, established in 1980 under the direction of Mr. Alan Cuthbertson, is closely associated with the University Unit, as is the Vascular Unit (Mr. D.G. Macleish). Particular interests in general surgery include oncology (with a particular emphasis on breast disease), endocrinology, geriatrics, and surgical infection. Members of the Department fulfil additional clinical duties at the Peter MacCallum Hospital, Fairfield Hospital, Mount Royal Hospital and Western General Hospital.

The strong emphasis on teaching established by Professor Ewing has continued, and members of the Department have taken an active role in the definition of the surgical syllabus in the Faculty. The traditional involvement in the art as well as the science of surgery has continued, and a new initiative developed by Mr Harry Ross, First Assistant in the Department, has been the establishment of a series of student debates on topics of general, legal and ethical interest, in an attempt to broaden students' perceptions of medicine.

In the research field, the Department has continued a strong involvement in transplantation, and is engaged in a major programme studying the effects of transfusion on subsequent transplant outcome, and in the *in vitro* prediction of clinical response to immunosuppressive agents. Particular developments have occurred in the oncology field. The Department has developed a central role in the Australian and New Zealand Advanced Breast Cancer Trials, which are co-ordinated by Mr. John Forbes, First Assistant in the Department. In 1982, Mr. Forbes was appointed Honorary Director, The Clinical Oncological Society of Australia National Cancer Data Trials Centre, in association with the Department of Statistics of Macquarie University (Professor D. McNeil). It is intended that this Centre will provide expertise and advice in the design, conduct and analysis of cancer trials on a national basis. A particular interest has been developed in familial breast cancer, and a major study is being undertaken into genetic markers in such patients. There is also an animal experimental programme into the development of a bioassay system for metastatic disease, and into the role of adjuvant therapy for control of tumour growth.

The Melbourne Tumour Biology Branch of the Ludwig Institute for Cancer Research was established under the direction of Dr. A.W. Burgess during 1981 in close association with the Department, the Royal Melbourne Hospital and the Walter and Eliza Hall Institute. The scientists of the Ludwig Institute are closely associated with the work of the Department and are undertaking a major study at the molecular and cellular biology level of the growth of normal tissues and tumours and the factors which control such growth. This close working relationship between scientists and surgeons offers a facility for training of undergraduate students, and in particular surgeons in training, which is probably unique in this country. It is hoped that this association will lead to a new dimension in academic surgical training in Australia.

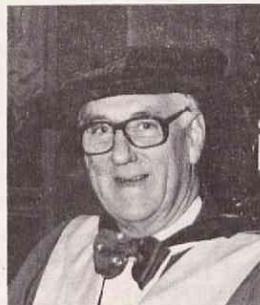
## People



Professor Emeritus  
Sir Sydney Sunderland



Professor Richard Lovell



Professor Emeritus  
Sir Lance Townsend



Dr Ian Gust



Professor Sir Gustav Nossal

### The Sunderland Society

Professor Emeritus Sir Sydney Sunderland, Dean of the University's Faculty of Medicine from 1953 to 1971, has been honoured overseas for his pioneering work on nerve injury and nerve repair. A society with international membership, established in the USA to increase knowledge of nerve injury, regeneration and repair, has been renamed The Sunderland Society. Previously it was called the Peripheral Nerve Study Group.

The inaugural meeting of the Society was held three years ago in Long Island, New York, and it was at the second meeting in New Orleans last November that the members voted unanimously to change the name. The next meeting will be in New Mexico in 1983 and the following will be in Baltimore in 1985. Members of the Society are based in the USA, Switzerland, Canada, Austria, Sweden and Australia.

Sir Sydney's interest in peripheral nerve injury and regeneration developed from his work with the casualties from the Second World War. When he went to the USA and Europe in 1949 he found that Australia was well ahead in work on peripheral nerves. "Today", he says, "most of the surgical procedures and techniques practised overseas are based on this pioneering work."

Now 71, Professor Sunderland retired from the University in 1975. He was appointed Professor of Anatomy in 1938 while at Oxford, but did not take up his Chair until 1940. He became Professor of Experimental Neurology in 1961.

Sir Sydney has become a legend in his field. He still sees patients and travels widely discussing his research findings. "Today people don't just want to read your views. They prefer to have you take part in the cut and thrust of debate. I spend much time overseas in hospital wards and in discussion groups in which juniors can participate actively. I like it because it sharpens and crystallizes one's thinking."

His book, *Nerves and Nerve Injuries* is a standard text and has sold widely throughout the world. First published in 1968, it was reprinted in 1972, appeared as a revised second edition in 1978, has again been reprinted, and has been published in Spanish and Italian editions. "My publishers want me to write another edition," he says, "but my present thinking is to prepare a monograph which can be used with the parent book."

Since retiring from the University, Sir Sydney has been working harder than ever. "I have been able to give all of my time to being a guest research worker in the University's Anatomy Department because I no longer have administrative commitments."

### Sir William Upjohn Medal 1982 Professor Richard Lovell

At the Degree Ceremony in December 1982, the Sir William Upjohn Medal was awarded to Professor Richard Lovell with the following citation:

"Professor Richard Robert Haynes Lovell graduated in Medicine in the University of London in 1941. After a short period on the house at St. Mary's Hospital he entered active service in the Royal Navy Volunteer Reserve and served until 1946, being mentioned in

despatches. He then entered into a life of hospital and academic medicine, becoming Lecturer and then Senior Lecturer in St. Mary's Medical College, a school of the University of London. Here he was subject to the enthusiasms and clinical research methods of George Pickering. The main interest of the school was in high blood pressure, but Dr. Lovell became interested also in rheumatic conditions.

In 1955 he was invited to the James Stewart Chair of Medicine in this University — at first held in the Royal Melbourne and Alfred Hospitals but after the Alfred seceded to Monash, in the Royal Melbourne solely. It was here that he developed the model of an academic clinical department which has proven so well adapted to the Australian background. He sought to bring the honorary staff of the Hospital into the academic orbit; he did not seek to have domination over them. He played his full part in the policy decisions of the Hospital and remained chief in his own area. He was not only the Foundation Professor of Clinical Medicine in this University, he was founder of a style of organisation, of standards and collegiality of clinical lecturing now copied in many medical schools in Australia.

In his own sphere he has gone out from the laboratory to organise, lead and do research in a number of fields. The main one has been the epidemiology of high blood pressure not only in Australia, but in New Guinea and the Pacific Islands where significant differences were discovered and correlates investigated. He has also dealt with the factors involved in sudden cardiac death and the hereditary aspect of degenerative diseases. He established a number of intensive studies of medical problems in limited communities, with some surprising findings.

Against this background of hospital and department there moves the steady stream of highly gifted Lovell men. With the high standards of clinical practice, marching with rigorous methods of testing ideas, young people with fire found encouragement, support and freedom to follow their own leads. As a consequence his people are found in high positions throughout Australia.

He has played his part also in public policy and administration. He has served on the Medical Research Advisory and other important committees of the National Health and Medical Research Council for which he did so much in the development of a definitive code of ethics for clinical investigation. He played a leading role in the team which produced the excellent reports on High Blood Pressure as a national problem. He has been consultant to the World Health Organisation on many occasions. It is well recognised that this study is a model, unequalled elsewhere.

The Upjohn Medal is awarded for distinguished services to medicine in Australia. Professor Lovell's contributions have been distinguished in every aspect of academic medicine, in his own research, in teaching both graduates and undergraduates, in the development of research workers and teachers and in public duty."

## Honorary Degree Awarded to Sir Lance Townsend

Professor Emeritus Sir Lance Townsend was awarded the honorary degree of Doctor of Laws at the University of Melbourne conferring of degrees ceremony on 11 December 1982. The official citation was read by the Chairman of the Academic Board, Professor Colin Howard:

"Professor Emeritus Sir Sydney Lance Townsend was born in Geelong, Victoria on 17 December, 1912. Following completion of his medical degree at the University of Melbourne in 1935 he worked as a Resident Medical Officer at the Bendigo and Base Hospital, the Royal Women's Hospital and the Tennant Creek Hospital in the Northern Territory, between 1936 and 1938. He obtained the Diploma of Tropical Medicine and Hygiene and became a Member of the Royal College of Obstetricians and Gynaecologists in 1939. In the second world war he served with the Royal Navy in the Mediterranean and eastern areas, was awarded a King's Commendation and was demobilized with the rank of Surgeon-Commander. Between 1948 and 1963 he served in the Volunteer Reserve of the Royal Australian Navy and was promoted to Surgeon-Captain.

Following his war service he worked in Britain and became a Fellow of the Royal College of Surgeons of Edinburgh in 1947. He returned to Australia in 1948 and became a Fellow of the Royal Australasian College of Surgeons. Between then and now he has become a Fellow of no less than eleven other major medical Colleges all over the world; been awarded his M.D. in the University of Melbourne for research into hypertension in pregnancy; a Master of Gynaecology and Obstetrics in the University of Melbourne; and a Doctor of Laws Honoris Causa by Monash University.

Between 1951 and 1969 Sir Lance played a major role as a member of the Australian Council of the Royal College of Obstetricians and Gynaecologists. He was its Secretary between 1956 and 1960, Vice-President between 1960 and 1963, and President of the Australian Council between 1963 and 1969. In 1979 he became a Foundation Fellow of the Royal Australian College of Obstetricians and Gynaecologists.

As Professor of Obstetrics and Gynaecology in this University from 1950 to 1977, Sir Lance made a significant contribution to the development of the Department. As Dean of the Faculty of Medicine between 1971 and 1977 he was a forceful leader and played a major role in the affairs of the University during a difficult period of student unrest. In 1978 he was appointed Assistant Vice-Chancellor and contributed to the development of staffing and budgetary policies.

In the area of health services he was Chairman of the Maternal and Prenatal Committees of the State of Victoria from 1956, foundation Chairman of the Maternal Health Committee of the N.H. & M.R.C. from 1960 to 1972, foundation Chairman of the Victorian Cytology Service from 1964 to the present time, and a member of the Victorian Bush Nursing Hospitals Association between 1951 and 1980, being Honorary Secretary of this latter organization from 1961 to 1973.

In 1973 Sir Lance was appointed with Sir Colin Syme to conduct an inquiry into Victorian health services. Between then and July 1975 he visited and reviewed a large number of institutions and developed proposals which led to the creation of the Health Commission of Victoria. He is foundation Chairman of the Commission's Health Advisory Council. Sir Lance also holds the position of President of the Austin Hospital.

Internationally he was member of the Executive Committee of the International Federation of Obstetrics and Gynaecology from 1964 to 1979 and Vice-President of the International Federation between 1976 and 1979. In 1980 he was appointed Consultant Obstetrician for the World Health Organization and was responsible for examination of the eastern Mediterranean sector. Sir Lance has held in addition many appointments as Visiting Professor in overseas medical schools.

In all his appointments Sir Lance's energy and enthusiasm has been obvious to those with whom he has worked. His influence on obstetrics and gynaecology both in Australia and elsewhere has been profound. A sense of fulfilment has never diminished his devotion to the future, for his commitment was based on perception well in advance of many of his colleagues."

## Selwyn-Smith Medical Research Prize 1982 Dr Ian Gust

A medical virologist has been awarded the University of Melbourne's premier award for medical research, the Selwyn-Smith Medical Research Prize, for work on the hepatitis A virus which should lead to the development of preventive vaccines.

He is Dr Ian Gust, Director of the Virus Laboratory at Fairfield Hospital, Melbourne, since 1971 and a Senior Associate in the University's Department of Microbiology. He is also an Associate Professor at Monash University.

The Selwyn-Smith Medical Research Prize was created by a bequest of the late Emily Florence Selwyn-Smith, who died in 1964. The 1982 prize (\$3,700) is the sixth awarded, and the first since the prize was altered to a triennial award.

This year's award was announced at a meeting of the Faculty of Medicine, on Thursday, 16 September, and is in recognition of Dr Gust's "outstanding contributions to virology, particularly in the field of hepatitis A infection."

Dr Gust leads a team of research scientists at Fairfield Hospital which has recently successfully adapted strains of hepatitis A virus to grow in cell culture. This has led to the development of an attenuated strain of the virus, which is one which retains the ability to infect but no longer produces disease. The attenuated strain is an important factor in the development of vaccines to prevent hepatitis A.

Dr Gust and his team hope that, taking the necessary safeguards, they will be able within the next year to apply the results of their research to humans.

Dr Gust also recently was awarded the Wellcome Australia Award and Medal for "his significant contribution to medical research in the past three years".

A graduate of the University of Melbourne, holding the degrees of Doctor of Medicine, Bachelor of Surgery and Bachelor of Science, and also holding a Diploma of Bacteriology from London, Dr Gust is a Fellow both of the Royal Australasian College of Physicians and of the Royal College of Pathologists, Australasia.

## Sir Gustav Nossal Awarded ANZAAS Medal

The 1982 ANZAAS Medal has been awarded to Professor Sir Gustav Nossal, Director of the Walter and Eliza Hall Institute of Medical Research and Professor of Medical Biology at the University of Melbourne.

The awarding of the medal recognizes his many distinguished contributions to the science of immunology, reported in more than 200 publications including an influential book, *Antibodies and Immunity*.

Early in his research career at the Walter and Eliza Hall Institute, Sir Gustav carried out the first experiments which offered direct support for Sir Macfarlane Burnet's concept that individual antibody-forming cells could make antibody which was specific to a particular foreign protein. Much of his research has involved the study of certain lymphocytes which, after appropriate stimulation, secrete antibody.

Sir Gustav's scientific contributions have been recognized by his election to Fellowship of the Australian Academy of Science, the Academy of Technological Sciences, as a Foreign Associate of the US National Academy of Sciences, and to Fellowship of the Royal Society.

As Director of the Walter and Eliza Hall Institute since 1965, in succession to Sir Macfarlane Burnet, he has played a major role in shaping medical research in Australia and in redirecting the work of the Institute into several valuable new areas.

Sir Gustav has had a major impact also on the public appreciation of the role of medical research through his innumerable public lectures, such as the Boyer lecture series of the ABC. In this he has promoted two of the objects of ANZAAS, to foster communication between scientists and the general public, and between scientists of different disciplines.

## Professor Leslie John Ray

Members of the University of Melbourne and many others in the community mourn the passing of Professor Leslie John Ray of the Department of Anatomy, who died on 28 January 1982, after a short illness.

Les Ray was born in 1917 and did his schooling in Essendon and at Scotch College. He then entered the University of Melbourne to begin a course in Medicine and Surgery. During his course he showed a particular interest in anatomy and gained honours in that subject. He graduated in 1941.

While at University he was a resident in Ormond College and shared a room with the late Professor George Christie, who was to remain a life-long friend.

After a short period as a resident medical officer in Prince Henry's Hospital, he served in the RAAF in World War 2 in Australia and South-East Asia. During his service with the Air Force he made a valuable contribution related to the control of certain tropical diseases.

In 1945 he left the Air Force and joined the staff of the Anatomy Department where, apart from study visits overseas, he was to continue in his chosen discipline of anatomy for the remainder of his life. Les Ray commenced his service with the University as a lecturer in Anatomy, was promoted to Associate Professor in 1956 and became Professor of Anatomy in 1961. He was Chairman of the Department of Anatomy from 1961 until 1978, and Deputy Dean of the Faculty of Medicine from 1971 until 1976.

His early training included a year in London with the late Professor Frederic Wood Jones who stimulated his interest not only in topographical anatomy but also in anthropology and comparative anatomy. It was following this visit that he gained the PhD for a thesis on peripheral nerves. Early in his teaching career he became interested in x-rays and the correlation of topographical anatomy as displayed by dissection with the appearances revealed by x-rays was a development in modern anatomical teaching which he pioneered in Australia.

Postgraduate education owes a great deal to his efforts in many disciplines, not only in medicine. He was Chairman of the PhD Committee from 1971 to 1975, an advisor to the Lincoln Institute and at the time of his death a member of the Board of the Howard Florey Institute of Experimental Physiology and Medicine which he had joined at its inception in 1971.

At various times he was a member of the Board of Examiners of the professional colleges of surgery, radiology and ophthalmology and his work was recognized with an Honorary Fellowship of the Royal Australasian College of Surgeons.

He had many interests outside his own Department and was a member of the Zoological Board of Victoria which he joined in 1965. As a member of the scientific committee he saw the zoo develop into what is now a very fine institution.

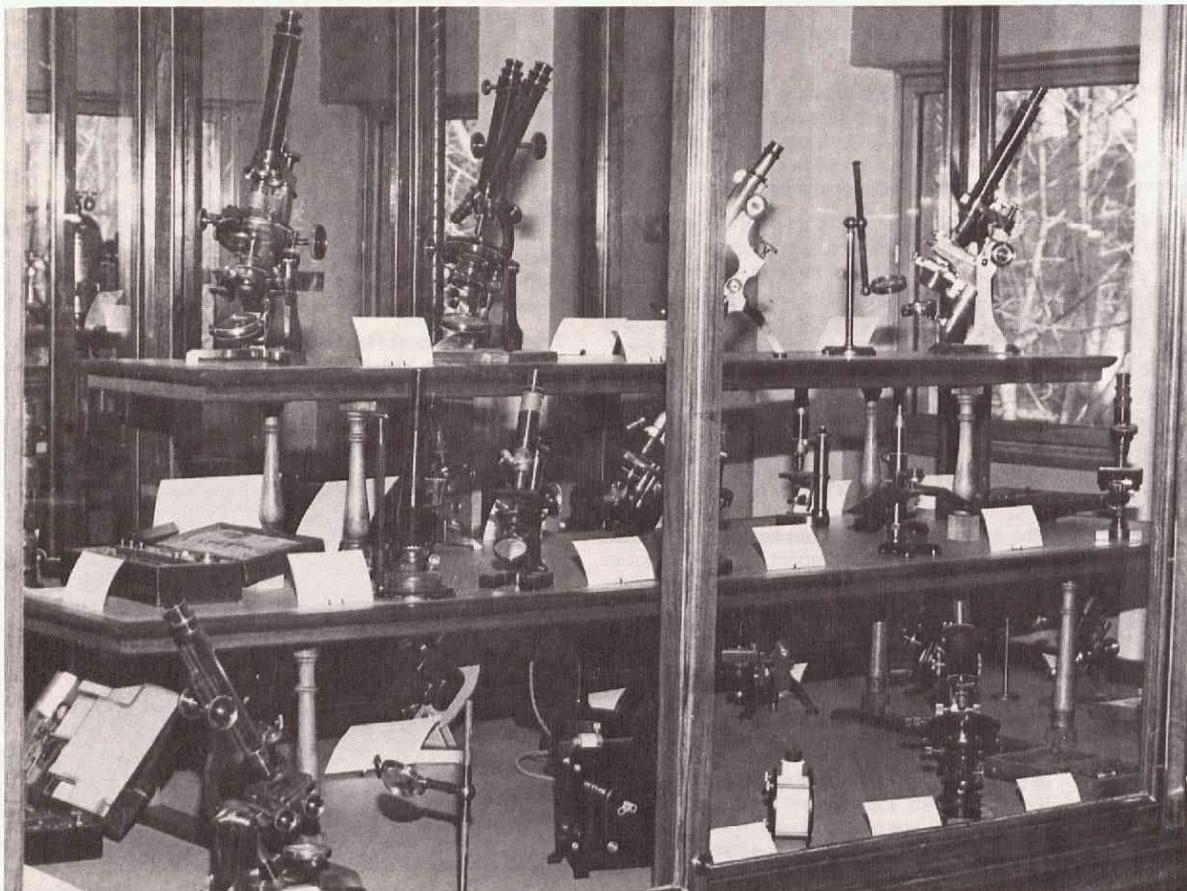
He was a fine athlete, a University Blue in hockey and as an undergraduate captain of the Combined Universities hockey team. He was later a councillor of the Australian Hockey Federation.

University life absorbed a good deal of his time. He was a foundation member of University House and President from April 1959 to April 1960.

But his greatest monument is his fine reputation as a teacher and the contribution he made to the development of the present Department of Anatomy. Under his Chairmanship the Department, which had long had a fine tradition in teaching and research, expanded its physical facilities and became part of the medical sciences complex. During construction of the new building he spent countless hours conferring with the architects to produce what is possibly the finest building of its type in the world.

He will be remembered by his colleagues at the University with great affection, as a warm friend and for his life-long service.

*K.C. Bradley*



Display of microscopes in the Medical History Unit, Brownless Medical Library.



The retiring Vice-Chancellor, Professor Sir David Derham, hands over the reins to Professor David Caro.

### Retirement of Sir David Derham

Professor Sir David Derham retired on 31 May 1982 after 14 years as Vice-Chancellor of the University of Melbourne.

In a tribute to Sir David, Professor Emeritus R. Douglas Wright, the Chancellor, said: "We trusted him — he earned our trust . . . He had the highest ideals for the University and showed it in everything he did. He was, and is, the exemplar of the best academic."

In the weeks before his retirement Sir David was honoured by University Council and the Academic Board in Minutes of Appreciation. On 7 April he was awarded a degree of Doctor of Laws *Honoris causa*, the University's highest honour.

To farewell Sir David and Lady Derham, hundreds of staff and friends packed Wilson Hall at a special function hosted by the Chancellor on 24 May.

At the Wilson Hall function Sir David welcomed his successor: "I should like to say how proud the University should be that it has David Caro and Fiona his wife back with it in Melbourne. I know, and you know, that in so far as a Vice-Chancellor can help a university, this University is in good hands for the future."

The Chancellor referred to Sir David's 14 years as Vice-Chancellor "capping 40 odd years of association with the University of Melbourne." The Chancellor said: "David Derham came to this University as Vice-Chancellor at a time when the University was not, as we might say, 'a good risk'. He brought to it a deep knowledge of academic procedures, a deep knowledge of academic ideals, a good political sense and a very excellent knowledge of procedural law, and some a bit outside of it.

As a result, the University of Melbourne now, with quite a stiff pressure on it from the powers-that-be, is able to stand up against the tide of misfortune, and not only stand up against it but put up a jolly good counter-attack."

The Chancellor praised the role that Lady Derham had played and her involvement in many University activities, especially the women's activities. "Like her husband she enjoyed the confidence of the community at large, and that is exemplified by her Presidency of the Royal Children's Hospital, one of the great hospitals of the world, going on to greater things under her Presidency."

"So that it is right proper that tonight we express our respect and gratitude to Sir David and Lady Derham. They have done this University a great honour in serving it."

### Appointment of New Vice-Chancellor

Professor David Caro, O.B.E., succeeded Professor Sir David Derham as Vice-Chancellor on 1 June 1982. Before becoming Vice-Chancellor of the University of Tasmania in January 1978,

Professor Caro was the University of Melbourne's first full-time Deputy Vice-Chancellor from 1972-1977.

David Edmund Caro was born in Melbourne in 1922. He was educated at the Geelong Church of England Grammar School, at the University of Melbourne and at the University of Birmingham. After serving with the Royal Australian Air Force from 1941 to 1946, he graduated as a Master of Science with first class honours. He was awarded the Dixon Scholarship in Physics, and a Royal Commission of the Exhibition of 1851 Science Research Scholarship which took him to the University of Birmingham where he obtained the degree of Doctor of Philosophy.

David Caro returned to this University in 1952 as a Lecturer in Physics. He was made Senior Lecturer in 1954 and Reader in 1958. From 1961 to 1972 he was Professor of Experimental Physics and Head of the School of Physics. During that period he served as Associate Dean and as Dean of the Faculty of Science. He is a former President of the Australian Institute of Nuclear Science and Engineering.

Professor Caro made major contributions to the advancement of physics. He designed and built one of the first variable energy cyclotrons in the world, and he established the only high energy physics research group in Australia. The new Physics building in this University was designed to his directions. His highly regarded text *Modern Physics* is in its third edition.

Professor Caro's work for the University of Melbourne as Deputy Vice-Chancellor was distinguished by sustained excellence. The University relied to a quite remarkable degree upon his skills, his knowledge, his understanding, and his devotion to its interests. Further, Professor Caro's contributions to the development of secondary education, to university undergraduate and post-graduate education, to research in nuclear physics, and to the improvement of academic and financial administration in universities, earned him general admiration and respect.

In 1979 he was awarded the Honorary Degree of Doctor of Laws by this University in recognition of his eminent public service. His contribution to the universities of Australia since becoming Vice-Chancellor of the University of Tasmania has been considerable. He has taken over the industrial aspects of the Australian Vice-Chancellors' Committee in recent times, and is Deputy Chairman of the AVCC. Professor Caro is also Chairman of the Antarctic Research Policy Advisory Committee. His distinguished service to the University of Tasmania is well known to those who have followed the fortunes of that University recently.

### Re-election of Dean of Medicine

Professor David Penington completed his first term of five years as Dean of the Faculty of Medicine at the end of 1982. He has been re-elected as Dean for a further period of five years.

Professor Graeme Ryan has been re-elected Deputy Dean. Professor John Hurley is Assistant Dean (Pre-clinical) and Professor Priscilla Kincaid-Smith is Assistant Dean (Clinical).



UMMS Meeting, 13 September 1982. The Dean of the Faculty of Medicine, Professor David Penington (right) and the Deputy Dean, Professor Graeme Ryan.

## Research Centres of Excellence

Two research centres of excellence were established during 1982 at the University of Melbourne — one for plant cell biology research and the other for research into transplantation and cancer. The University will receive \$1.7 million over three years for each project, from the Federal Government.

Professor Bruce Knox and Dr. Adrienne Clarke of the School of Botany jointly run the Plant Cell Biology Research Centre in the Faculty of Science. Professor Ian McKenzie of the Department of Pathology heads the Research Centre for Transplantation and Cancer in the Faculty of Medicine.

Ian McKenzie's research into transplantation and cancer extends a range of activities using monoclonal antibody production and other modern biological techniques in the study of graft rejection and cancer. The work currently concentrates on the production and testing of a range of antibodies and other reagents for use in the diagnosis, localization and treatment of cancer.

Ian McKenzie graduated M.B., B.S. from the University of Melbourne in 1961. He joined the Royal Melbourne Hospital in 1962 as a Junior Resident Medical Officer progressing to Senior Resident Medical Officer and Registrar. In 1966 he was awarded the Degree of Doctor of Medicine. In that year he won the Grieve Prize in Medicine and became a member of the Royal Australasian College of Physicians.

In 1970 he was admitted to the Degree of Doctor of Philosophy in Transplantation Immunology and in 1972 he became a Fellow of the Royal Australasian College of Physicians.

Between 1969 and 1974 he worked in the United States where his research appointments included positions in the Massachusetts General Hospital, the Harvard Medical School, Boston, and the Jackson Laboratory, Maine. He returned to Melbourne as a Second Assistant in the Department of Medicine at the Austin and Repatriation General Hospitals in 1974 and was appointed Reader in 1977.

In 1980 he was appointed to a Personal Chair in Medicine. In 1981 he and his research group were successfully transplanted into the Department of Pathology in the University Medical Centre Building.

## The Bionic Ear

The Hon. David Thomson, the Commonwealth Minister for Science and Technology recently unveiled a commemorative plaque at the University's Department of Otolaryngology in the Royal Victorian Eye and Ear Hospital.

The plaque acknowledges the substantial support provided by the National Health and Medical Research Council and the Department of Science and Technology to the University of Melbourne for the underlying research that is now leading to the development of a bionic ear by Australian industry.

A public-interest project allocation of \$2.2 million was made by the Department of Science and Technology to the Sydney firm Nucleus Limited to develop the bionic ear commercially in association with the University of Melbourne.

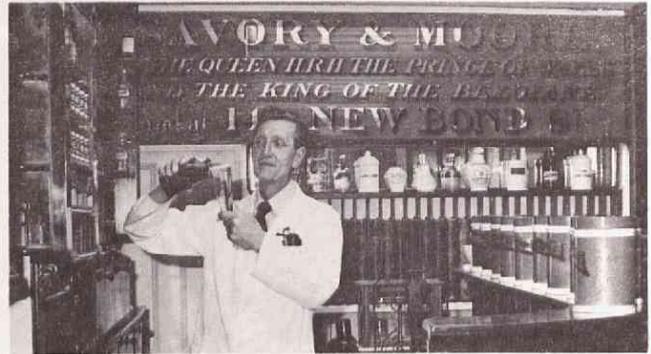
The bionic ear is based on the principle of electronically receiving, processing and coding sounds in a manner similar to that occurring naturally in the nerve fibres of an ear with normal hearing.

The system consists of a processor-transmitter which receives sound vibrations through a microphone, and converts them into coded radio signals. These are then transmitted through the skin to a receiver-stimulator or 'cochlear implant' surgically implanted into the mastoid bone behind the ear. The implanted device receives the signals and converts them into electric impulses which are fed to electrodes in the inner ear.

The Melbourne team, headed by Professor Graeme Clark of the Department of Otolaryngology, has found that the results obtained with the device are better than any reported for similar devices elsewhere in the world. Tests have shown that the speech-processing strategy being developed is achieving far better results than originally anticipated.

Graeme Clark was made an Officer of the Order of Australia in the 1983 Australia Day Honours List.

## Medical History Unit



Medical History Curator, Professor Harold Attwood, in the 19th century London pharmacy, Savory & Moore, which was reconstructed in the Museum in 1971. Does any reader know what he is making? (Ed. Synthetic malt scotch whiskey?)

This Faculty is unique in Australia in having a Medical History Unit. Built up from the efforts and recognised scholarship of Professor Kenneth Russell, it gained a physical presence in 1967 when the Wellcome Trust gave twenty thousand pounds sterling to complete the second floor of the Brownless Medical Library. Here, the Unit has a rare book room, a comfortable reading room (approximately 4,500 volumes) and a museum which is open daily. The museum was graced in 1971 by the Chapel Street Pharmacy of Savory & Moore which the Wellcome Trust gave to the Unit. This London pharmacy has been carefully rehoused to mimic its origin.

In 1976, when Professor Russell retired from his Personal Chair in Anatomy and Medical History, Faculty, in a period of economic stringency, was unable to provide a continuing full-time appointment. Fortunately, however, Kenneth Russell and his wife, Fogo, were able to carry on the work of the Unit.

In 1980, Harold Attwood, a Professor of Pathology, moved from the Austin Hospital to take up part-time Curatorship of the Unit. Since then, an additional four honorary appointments have been made to strengthen the efforts of the Russells. In 1982 the Unit provided undergraduate lectures and an Advanced Study Unit; a Bachelor of Medical Science student did historical work on the treatment of snakebite, and a senior graduate used the archives of the Unit to complete an M.D.

The Unit has close ties with the Medical History Society, A.M.A. (Victorian Branch), which holds its meetings in the reading room. This Society, under the Chairmanship of Dr. G.C.T. Kenny, has an enthusiastic membership of about one hundred. The Unit and the Medical History Society now produce a quarterly newsletter: *Medical History Australia*, which goes to related institutions and interested readers all over the world, in addition to members of the Society.

Interested graduates should write to Professor Harold Attwood in the Medical History Unit, or to the Honorary Secretary of the Society, Mr. Peter Burke, 111 Collins Street, Melbourne, Vic. 3000.

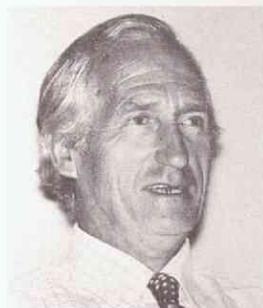
## Brownless Medical Library

A medical graduate of this University may use the full facilities of the Brownless Medical Library, located on the Campus, including access not only to monographs and journals, but also to the audiovisual library and the special collection relating to the history of medicine.

During Term, the Brownless Library is open 8.30 am to 10.00 pm (Monday to Friday), and 9.00 am to 12.00 noon on Saturday. During University holiday periods the Library closes earlier, at 6.00 pm on weekdays, except Wednesday (closes at 9.00 pm), the Library remains open on Saturday mornings. Telephone enquiries, 341 5717.

Graduates will be interested to know that Miss Anne Harrison, Medical Librarian since 1949, will be retiring in April this year. Under Miss Harrison's direction the Library collection and facilities developed beyond all recognition. All graduates who have used the Library extensively will be grateful for Miss Harrison's willing help at all times, for her deep knowledge of the medical literature, and for her thorough dedication to the development of the Brownless Medical Library.

## Recent Appointments



Professor John Hurley



Professor David Danks



Professor Nancy Millis



Professor Ian Darian-Smith

### Professor John Hurley

An experimental pathologist with an international reputation has been appointed to a Chair of Pathology in the University of Melbourne. He is Dr John V. Hurley who has been a Reader in the University's Department of Pathology since 1965.

Professor Hurley's research work since 1960 has been in the field of acute inflammation and the behaviour of normal and injured small blood vessels. (Inflammation occurs with any injury to tissue — through infection, cuts, bruises, etc.). He has been investigating what happens to the wall of the blood vessel when inflammation occurs and what makes it happen. This information assists in the treatment of inflammation and, in particular, in deciding which drugs will most effectively reduce inflammation in a variety of circumstances.

Professor Hurley's association with the University of Melbourne commenced as an undergraduate student more than 40 years ago. He holds the following degrees from this University: Bachelor of Medicine and Bachelor of Surgery (1944); Doctor of Philosophy (1959) and Doctor of Medicine (1965).

After graduating in medicine, Professor Hurley held appointment as a Junior Resident Medical Officer at the Royal Melbourne Hospital for a year. He then served with the Royal Australian Air Force for two and a half years.

Between 1948 and 1950, he was Surgical Associate Assistant at the Royal Melbourne Hospital and continued in the service of the Hospital as Assistant Pathologist between 1950 and 1951.

Professor Hurley joined the University's Department of Pathology in 1952 on a research grant, and was appointed Stewart Lecturer in that Department in 1955. He was appointed Lecturer in 1956 and promoted to Senior Lecturer in 1957 and to Reader in 1965.

Professor Hurley is a Fellow of the College of Pathologists of Australia, of the Royal Australasian College of Physicians, of the Royal Australasian College of Radiologists, and a founder Member and Fellow of the College of Pathologists (Great Britain).

### Professor David Danks

Professor David Danks will take up appointment as Director of the Royal Children's Hospital Research Foundation and Royal Children's Hospital Research Foundation Professor of Paediatrics in the University of Melbourne in January 1983.

Professor Danks has been Stevenson Professor of Paediatrics, Chairman of the University's Department of Paediatrics and Co-ordinator of Research, Royal Children's Hospital, since 1975.

Professor Danks' research has been in genetics, particularly in relation to inborn errors in metabolism. His reputation in research is international, especially for studies of genetic causes of liver disease, of phenylketonuria (PKU) and of copper metabolism. Recent research in the group has identified new forms of PKU and has developed methods of early diagnosis and even prenatal diagnosis, of these new diseases. In the past six years his genetic research group in the Royal Children's Hospital has greatly expanded its range of activities and the Hospital established the Birth Defects Research Institute in 1981 as the principal unit of the Royal Children's Hospital Research Foundation.

Professor Danks graduated from the University of Melbourne as a Bachelor of Medicine and Bachelor of Surgery in 1954 and was

admitted to the degree of Doctor of Medicine in 1957. He received his postgraduate training in medicine and paediatrics at the Royal Melbourne Hospital, the Royal Children's Hospital in Melbourne, and then in Newcastle-upon-Tyne, and in London. Training in genetics at the Institute of Child Health, London and at the Johns Hopkins University Hospital in Baltimore followed before returning to the Royal Children's Hospital in 1962, where he practised as a consultant paediatrician until 1966, while starting research into genetic diseases.

From 1967 to 1975, Professor Danks held the position of Reader in Human Genetics in the University, and from 1973 to 1981, Head, Genetics Research Unit Royal Children's Hospital Research Foundation. Since June 1981, he has been Director, Birth Defects Research Institute, Royal Children's Hospital Research Foundation.

The Foundation was incorporated under the Companies Act of Victoria in 1960. Its objectives, simply stated, are to develop and promote research, to recruit and train research workers, and by teaching, to ensure that its work permeates the Hospital and is available to those concerned with the health and welfare of children.

### Professor Nancy Millis

A microbiologist who has helped to solve some of the community's most difficult industrial problems has been made a Professor at the University of Melbourne.

Dr Nancy Millis, a Reader in the University's Department of Microbiology, was appointed to a Personal Chair in the Department at the November meeting of Council.

Much of Dr Millis' research has been at the interface between microbiology and industry and in the rapidly-growing area of micro-ecology. Often, her research has been in response to specific requests from industry and government agencies. She has worked on problems such as the disintegration of the Hume Highway as a result of microbial action and the infestation of large masses of paper pulp with fungus.

Her work has required a combination of sound ecological insight and a realistic practical response. Her success in these areas is clearly seen in the number of consultancies given to her and the number of grants that she has received from both government and industry.

Dr Millis' outstanding reputation in the area of microbial fermentation has been demonstrated by the invitation to act as adviser to the Government of Thailand, and her participation as a member of a Food Technology Group on a visit to China.

She has recently been appointed by the Minister of Science and Technology to chair the committee monitoring possible hazards associated with recombinant DNA technology in Australia.

Dr Millis gained a Bachelor of Agricultural Science degree in 1946 and Master of Agricultural Science in 1948 from the University of Melbourne and in 1952 the Doctor of Philosophy degree from the University of Bristol. She was the A.M. White Trust Scholar in 1947-48; received the Boots Research Scholarship, an international study grant from the American Society of University Women; a Fulbright travel grant and is a Fellow of the Australian Academy of Technological Sciences.

In 1956 Dr Millis was appointed a lecturer in the Department of Microbiology and in 1968, Reader. In 1977 she became a Member of the Order of the British Empire.

## Professor Ian Darian-Smith

An Australian neuroscientist — a world leader in the field of sensation and perception — has been appointed to a Chair of Anatomy in the University of Melbourne. He is Professor Ian Darian-Smith, who is currently a Professor of Physiology in the University of Melbourne. He will take up his new appointment on 1 March 1983.

Professor Darian-Smith sees his move to the Chair of Anatomy as providing an opportunity for the development of teaching and research in neuroscience in the Faculty of Medicine. He explains that neuroscience is the study of the structure and function of the nervous system. In the past, the 'structure' usually has been studied in departments of anatomy, while the 'function' has been of interest mainly to physiologists.

Professor Darian-Smith believes that by eliminating this arbitrary distinction, the Faculty of Medicine is one of the first faculties of medicine in Australia to provide integrated teaching in neuroscience.

For the past 10 years, Professor Darian-Smith has been carrying out research on the sensory and motor functions of the hand in humans and other primates. He believes that this research will be greatly assisted, and should prove more fruitful, as a result of combined functional and structural studies of the nervous system.

This research is important in the long term because Professor Darian-Smith and his team are studying some of the mechanisms that are disrupted in a number of common medical conditions — stroke, some head injuries, some birth injuries and Parkinson's Disease.

Professor Darian-Smith holds the degrees of Bachelor of Medicine and Bachelor of Surgery and the higher degree of Doctor of Medicine from the University of Adelaide. He has held appointments as a National Health and Medical Research Fellow in the Kanumatsu Institute in Sydney and a Senior NH & MR Fellow in the Department of Physiology, University of Sydney. From 1956-58, he was a C.J. Martin Travelling Fellow at the National Institute of Medical Research, Mill Hill, London.

In 1961, he was appointed Associate Professor of Physiology in the University of New South Wales and in 1965, he was appointed to a Personal Chair in that university. In 1968, he became Associate Professor of Physiology at the Johns Hopkins Medical School, Baltimore, USA, and he held that position until taking up his present appointment in 1972.

Professor Darian-Smith has been chosen by the American Physiological Society to edit the forthcoming volume of its handbook dealing with sensation and perception.

## Stop Press

Two further appointments have been announced very recently:

Dr Peter Phelan to the Stevenson Chair of Paediatrics at the Royal Children's Hospital.

Dr Graham Burrows to the position of Director of Psychiatry, Austin and Larundel Hospitals (with the title of Professor).



*Chiron the Centaur, continued from page 2.*

*Sagittarius, Poeticon astronomicon, C.J. Hyginus (Venice, 1485)*

There are two aspects to be noted in the earliest depictions of Chiron: first, the front legs are android not equine, and in early sculptural forms the torso of a horse is attached to the lumbar region of a standing man. Second, he is not an armed warrior but a gentle, forest-dwelling, hunter-gatherer, with an uprooted pine sappling over one shoulder; from it hang the wild fowl and hares he has caught; at foot is a lean-bodied hunting dog. That this is the real Chiron is unquestionable, for on Greek pottery of the period 800-700 B.C. this form has his name in Greek capital letters beside him. The artistic evolution of Chiron, and centaurs in general, took place in a series of stepwise reinterpretations from which the customary 'centaur anatomy' emerged. This iconographic change is thought to have occurred about 520-500 B.C., thereafter in Greek, and throughout Roman times, the centaur has equine forelegs, and a human torso, ending at the hips, is fused to the chest and neck of a horse.

There is an even more complex and contradictory skein of conflicting 'spiritual' or symbolic changes in centaurian behaviour, obviously not resolved in Greek times, or since. On the one hand we have centaurs as bibulous, drink-crazed womanizers; on the other, we have the gentle Chiron as the *fons et origo* of medical wisdom and the healing arts. As a hunter-gatherer he was obviously well placed to collect herbs and herbal remedies, and to commend natural forms of healing such as bathing in sacred pools or streams. Probably at a later stage he acquired the skills of *cheir-ergon* (literally 'hand work'), the origin of 'chirurgeon' and surgery.

There are also contradictions regarding where Chiron lived; at first in a sacred cave near the summit of Mount Pelion in the north east, but later far to the south, at Cape Malea in the Peloponnesus. Kerenyi's interesting interpretation is based on recent excavations of the cave cult-site on Mount Pelion, which have revealed an earlier sanctuary apparently devoted to Chiron as the chief god of healing, and a later temple dedicated to Zeus and Asklepios. In the third century B.C. there was a cult of physicians who worshipped Chiron, not Asklepios, as the older

medical deity and their founder. One possibility is that the original Chiron-centred cult was supplanted when Zeus and the Olympian family replaced older local deities. The expelled cult followers were apparently displaced to the south, where they established a new site on Cape Malea, thus 'tidying up' a conflict of rival cults and sites. Similar attempts to reconcile successive beliefs and deities may lie behind the legend that Chiron was Zeus's half-brother, with the same father Kronos, and the nymph Philyra rather than a 'cloud' as Chiron's mother. The same motivation may account for Chiron becoming the teacher of Asklepios, and of Apollo, Jason and Achilles, for good measure.

According to Pindar, Ixion king of the Lapiths begat the first centaur 'Kentauros' on a cloud; 'Kentauros' subsequently bred with mares to produce the 'herd' or 'tribe' of centaurs which lived in the forests on and around Mount Pelion. In another version Chiron was the son of Ixion, and there is obviously some confusion in the word *ken-tauros* suggesting a bovine rather than equine component (Sagittarius was sometimes depicted with horns).

Kerenyi describes the earliest centaurs as uncouth, rough creatures (Homer called them the "shaggy ones") which were lustful, violent, and much given to spoiling feasts by drinking all the wine (which they could smell out from great distances), and by abducting prospective brides. It was their disruption of a Lapithian wedding that provoked the Lapiths to exterminate all the centaurs. On another occasion Chiron himself was wounded unintentionally by Heracles, using an arrow poisoned with the blood of the Hydra. The wound was incurable, but Chiron was immortal, and to put an end to his plight, Zeus transposed Chiron to the heavens as a constellation set in the sky to keep a compassionate eye on the world and its inhabitants. It was in this form that Chiron became at some later date Sagittarius, an astrological not a medical figure which may represent the advent of Babylonian astrology, or just possibly a common origin for both Chiron and Sagittarius in some as yet undiscovered cult site.

In essence Chiron represents a benevolent character in whom reside all the healing arts and skills. Wise, gentle and compassionate, in his original form he was a student of nature far removed from ancestral antisocial activities, just as a graduate may be thought of as having 'put aside' the more earthy activities of his undergraduate youth, and thus an eminently suitable choice as the symbol and title of this publication. All who have had a hand in his re-birth wish him and his readers well.

Peter Jones



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