

Caduceus

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EDITORIAL

UNION IS STRENGTH

Did we not expect our words to be heard by the Senators? Did we not ask for greater student power? Now that a first step has been achieved, let us offer a word of praise to our student leaders and to the Senators.

Yet, could this have been attained without the support of our Union members? This seems hardly possible. We have shown our confidence in the President and our fervour in University Reforms, and so the Union Ex-Co, (says it in its manifesto), "receiving its mandates from the 2,400 members, feels its responsibility to its members and the people of Hong Kong in bringing about improvement to our University and making it worthy of its name." It is certain that no simple matter, not even a class dinner, can be a success if we are apathetic towards it, not to mention University Reforms.

It is the job of each individual to contemplate now his responsibilities as a member of our Students' Union and as a member of the Medical Society. Remember: Union is strength. It is only when we fully support a cause can that cause be accomplished. Our Union needs our support. So sings the Union Song: "Rally around her, loyal towards her, though we stand or fall."

HOPES ON THE NEW ELECTRON MICROSCOPE

Thanks to the generosity of the Royal Jockey Club of Hong Kong, the establishment of a new Electron Microscope Unit in the Pathology Department is good news for all.

Progress in certain fields of Medicine are expected with the introduction of this new instrument. Firstly, the diagnoses of certain diseases depend very much on the demonstration of certain pathologies. Though light microscopy is satisfactory for most cases of percutaneous renal biopsy, the demonstration of some renal lesions requires the higher magnification of an electronic microscope. Its introduction will no doubt facilitate the diagnosis of renal diseases and increase its accuracy in future.

Secondly, in the pandemic of influenza last year, Hong Kong was the first to show that the causative agent was a variant of the A2 strain. This was done before the electron microscope was available. One cannot help but to expect great advances from the Virus Unit once the EM is ready for use.

Seeds have been sown; let us hope that fruits will be available for harvest in a not too distant future.

6th Dean's Undergrad Committee Meeting

11th April

The first thing brought up for discussion was the status of this Committee. After carefully considering the situation, the Committee finally decided that it should remain informal. However, there could be formal agenda and minutes.

The Chairman of the Medical Society reported that the salary of house officers in Singapore as compared with that in Hong Kong was at present as follows (in HK dollars):

	Hong Kong	Singapore
Salary	\$800	\$1300
Residential fees	\$100	\$ 80

The Dean was requested to convey this comparison to the authorities concerned.

The Dean informed the Committee that the Appeal Committee would consist of the Dean, two staff members from each Department, two teaching staff members not directly connected with the examination and one student representative.

7th Dean's Undergrad Committee Meeting

2nd May

The Dean started the Meeting by informing the Committee that the matter concerning the salary of house officers had been brought forward to the Colonial Secretariat, the Financial Secretary and to the Committee for studying the problem of doctor shortage in Hong Kong.

The Dean promised to write to Caduceus to clarify the nature of the Appeal Committee.

The First Year Class Representative complained that many of the seats in the Lecture Theatres were worn out, and needed repair. The Dean promised to look to this, but remarked that class representatives should watch over that the seats would not be unduly damaged by their fellow students.

The Second Year Class Representative enquired the Dean what the nature of the coming Psychology Examination was.

The Dean said that it would be conducted along similar lines as the Psychiatry Examination. (According to information given by the Final Year Class Representative, a student has to pass the Psychiatry Examination before he is allowed to take up Internal Medicine). As to the consequence of failure in the Examination, the Dean remarked that he would act according to regulations.

The Third Year Class Representative complained that the Auditorium in Saiyungpun Hospital was small, noisy, and not properly air-conditioned. The Dean promised to refer the matter to Professor Ong.

The Final Year Class Representative asked the Dean when the Final M.B. Exams. Results would be published. He was advised by the Dean to contact Mr. Walker.

The Chairman wished to

INTRODUCING THE ELECTRON MICROSCOPE

The Electron Microscope Unit in the Pathology Building was presented to the University by the Royal H.K. Jockey Club and was officially opened on the 9th April, 1969 by the Chief Steward Dr. A.H. Saunders. The Unit with the Philips EM 300 high resolution microscope and ancillary equipment was established with a generous grant of \$391,275.00. Its opening marked the beginning of high resolution microscopy in the University and indeed in Hong Kong.

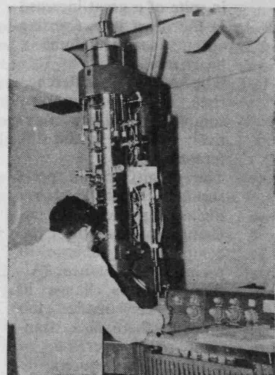
The EM 300 is one of the most advanced models of electron microscopes. Its resolution power is between 2-3 angstrom units. With its scanning device, magnifications as low as 220 times are possible. From this low magnification, it can go up to 500,000 times. All the electromagnetic lenses are independently adjustable. The chambers for the electron gun, the specimen holder and the camera can be isolated from the main vacuum system, when required. This feature cuts down the pumping-down time to the minimum and ensures comfortable operation without loss of time in waiting for the vacuum to build up. The circuits are fully transistorised.

The light microscope which has served medical and biological sciences so well is limited by the wave length of visible light. It cannot resolve or distinguish between two points less than 0.2 micron apart. The electron microscope, on the other hand, utilising an electron beam and a fluorescent screen to make the image visible, can resolve two points 2-3 angstrom units ($1\text{Å} = 1/10,000\text{m}$) apart. This power of resolution permits delineation of many subcellular structures which had only been guessed at with the light microscope.

It seems at first glance that electron microscopy is just an extension of light microscopy. However, it is not so simple as that. Because of its high power of resolution a good quality of preparation or fixation of material is much more critical than in light microscopy. Secondly, to utilise the high resolution power of the Electron Microscope, a much thinner section is necessary than with light microscopy. For the light microscope, a section of 5-8 microns is adequate, whereas in electron microscopy a section needs to be as thin as 1/20th to 1/40th of a micron. To achieve such an ultrathin section, a different embedding material from paraffin wax is essential.

The fixative commonly used nowadays is osmium tetroxide in an appropriate buffer. Other fixatives such as glutaraldehyde, potassium permanganate have been used for different purposes. No doubt newer fixatives will emerge as research into the effect of various substances on biological material continues. The embedding material has to be very hard in order to achieve this thinness. Plastics of various kinds have been used with success. Before polymerisation the plastic is in a fluid state and so can permeate the tiny block of fixed tissue. Once this is achieved, polymerisation is allowed to proceed so that the tissue becomes embedded in hard plastic. This block is then cut with an ultra microtome which uses either a mechanical or a thermal device to advance the block. Sections as thin as 250 Å may be obtained. To cut such hard material a broken piece of glass is commonly used as the knife. The more expensive diamond knives can also be used. The section can then be stained with various electron dense material such as uranium or lead salts to give more contrast and definition to the image of the ultra structures. The thin section is mounted on a copper grid with large number of holes (mesh) and the grid with the specimen is put into the electron microscope and viewed in the fluorescent screen. Photographic recording is an essential part of electron microscopy because detailed study is not possible on the fluorescent screen.

In this brief description of this basic technique in medical and biological use of the electron microscope it is not possible to say much about the many special techniques and applications. Histochemical and autoradiographic techniques can also be applied at the electron microscope level. Freeze etching, re-



The Electron Microscope

plica production and shadowing all figure in the armamentarium of the electron microscopist.

The earliest changes of autolysis are detectable by the electron microscope and rapid fixation of very fresh tissue is required to avoid artefact. By the same token, the earliest pathological change can also be detected long before it is visible with the light microscope. Accordingly, one of the greatest advantages of the Electron Microscope in medicine is the demonstration of early pathological change at the subcellular level. Generally, at the present time, the electron microscope is more of a tool for research than for diagnosis. This is partly because of the difficulty of working with human tissue. The only diagnostic use of the electron microscope is perhaps in relationship to renal disease. In the nephrotic syndrome, the distinction between lipid nephrosis (minimal renal change) and early membranous glomerulonephritis is only possible with any certainty by the use of the Electron Microscope. The distinction is important because there is a difference in the management and prognosis of the two conditions.

In the field of research, particularly in animal experimentation, the Electron Microscope has opened a large field of activity. With experimental animals, very fresh tissue can be obtained and fixation can be improved by perfusion *in vivo* so that artefacts from autolysis are reduced to a minimum and interpretation can be exact.

At the moment, the Department of Pathology is using the Electron Microscope in diagnosis of renal disease and in research of experimental proteinuria. Researches in the early stages of experimental liver cancer will also employ it.

(Dr. W. C. Chan)

NEWS IN BRIEF

Presidential Address

The Presidential Address of the 1968-1969 session was delivered on May 9, 1969. Before the Address, refreshment was served at the Canteen, and a group photo was taken at 5.30 p.m. After that, the President, Prof. Gibson, delivered his Address in Physiology Lecture Theatre, Li Shu Fan Building. The title of the Address was Geographic Pathology seen from Hong Kong.

Medic Annual Ball

The Medic Annual Ball will be held on the seventh of June in Mandarin Hotel. Tickets are available at \$35 per couple.

know whether the Medical Society could proceed to choose the Student Representative in the Appeal Committee. The Dean gave a positive reply. Next, the Chairman asked whether the Dean's Undergrad Committee Meeting would go on during the Dean's leave. The Dean answered that most probably, Professor Ong would continue to conduct the Meetings.

The Influence of Posture on Circulation

Mountain Rock

The pressure at any point in the vascular system may be resolved into 3 components: (1). the static filling pressure of resting circulation, modified by (2). the dynamic pressure component which is due to flow and flow resistance, and (3). the hydrostatic pressure component caused by gravity.

The circulatory adjustments which take place when one changes from a recumbent position to the erect attitude result simply from the redistribution of hydrostatic pressures at various points in the vascular system. Thus the state of circulation in orthostasis may be considered as functional haemorrhage into the dependent vascular bed. The series of events may be summarised as follows:

- (a) Blood shifts out of the central veins in the thorax and tends to pool in the capacitance vessels of the lower extremities.
- (b) Thus there is a reduction of the end-diastolic ventricular volume, leading to the curtailment of stroke volume.
- (c) The cardiac output falls in spite of a great increase in the heart rate. (cardiac output = stroke volume x heart rate)
- (d) The A-V O₂ difference rises since oxygen consumption remains relatively constant in the different postures.
- (e) The mean arterial pressure at heart level remains partially unchanged as a result of the compensatory increase in peripheral resistance. (Although if the change in posture is made too quickly, there is a transient small decrease of the arterial pressure.)

(The systolic pressure is slightly raised, the diastolic pressure rises more markedly. Consequently the arterial pulse pressure is decreased.)

- (f) Although the arterial pressure in the head region drops during standing, there is no corresponding fall in the driving pressure since the venous pressure decreases even more markedly. Besides there is a concomitant fall in CSF pressure. Despite these facts, the cerebral flow falls in the erect attitude. (Probably the hyperventilation in the upright position decreases the arterial pCO₂ and so the vasodilator effect of CO₂ is reduced.)

Homeostatic mechanisms:

- (a) The atrial stretch receptors and the baroreceptors of the carotid sinus and aortic arch reflexly increase the heart rate and peripheral resistance.
- (b) There is autoregulatory change of the tension of vascular smooth muscle to counteract the passive changes in the wall distension of peripheral blood vessels caused by large local pressure fluctuation. This is called the Bayliss effect. The increase in smooth muscle tone in response to increased wall stretch is

probably myogenic. It may be of interest to note that there is a definitely higher resting tone of resistance vessels of foot skin even in the supine position as compared with vessels of the skin of the upper extremities. This is probably a chronic adaptation to the habitual upright posture.

- (c) The muscle pump increases the venous return and reduces the venous pooling.
- (d) The hyperventilation in the erect position increases the efficiency of the respiratory pump. The vis a fronte is thus increased.
- (e) There is conjugate adjustment of the total blood volume and vascular capacity for the control of intrathoracic volume. Orthostasis is associated with oliguria and diminished excretion of NaCl, ADH and aldosterone secretion is increased for the regulation of the fullness of the blood stream.

A firm knowledge of the influence of posture is important not only to the student of physiology but also to the clinician. Care should be taken, for instance, not to move a patient too much if he is in the state of impending shock. The use of G-suit is the result of such studies.

Correspondence

The Editor,

CADUCEUS,

Medical Student Centre.

Dear Sir,

We refer to the "conclusions" of a questionnaire issued by the Medical Delegation to the students' Commission for University Reforms, published in CADUCEUS, 15th March, 1969, in which grades of either "very satisfactory" or "not satisfactory" are assigned to teaching in a selection of subjects from the medical curriculum, with the prima facie implication that good teaching is encountered only in Medicine, Pathology, and Paediatrics and that unsatisfactory teaching is encountered only in Biochemistry and Pharmacology. Such naive interpretation we know leads to conclusions that are false, but the fact remains that publication of such a superficial report of a questionnaire without explanatory comment or analysis, like a propaganda article in the popular press, invites comparisons that are odious and conclusions that are entirely subjective.

It would be analogously unfair, for example, if we published a report, based on the results of a questionnaire in the form of test-papers in biochemistry, with the conclusions that science students are good students and that medical students are not. But that would be the conclusion if all other factors were ignored, the report being based solely on the fact that the answers of science students had revealed a degree of scholarship, an ability to express ideas and concepts clearly, a sound grasp of basic principles, and a respect for scientific precision and terminology far above the level attained by the average medical student.

But, as we have said, such comparisons are odious. A fair assessment of the qualities of students would take cognisance of the fact that the preclinical student is studying, often reluctantly, subjects such as biochemistry that the curriculum thrusts upon him and for which he is, by inclination, not adequately prepared. His qualities might be better judged in the clinical years when he is learning the subjects of his choice. He wants to be a "doctor" and in the clinical years he feels that he is learning how to be one. Such factors should also be taken into account when students attempt to compare the qualities of teaching in the subjects of their choice with those of teaching in subjects that are not, and to which the students are reluctant to apply their intelligence.

There are other factors which a medical student may not always appreciate: that clinical teaching is largely vocational and concerned with training the student to be competent in the practice and worthy of a profession, but in preclinical teaching, though the subject matter is selected in deference to vocational needs, the emphasis is on academic values and standards. A university teacher, unlike his counterpart in a technical college or the clinical teacher in a hospital, is less concerned with vocational aim and professional qualification than with the fact that his students are seeking a University Degree. It is only natural that the student who is vocationally but not academically inclined should be more appreciative of the teaching that suits his inclination, but it is unfair for him to interpret this preference as a measure of the qualities of his teachers.

There is another factor that students may not always appreciate. It is that, independently of the qualities and potentialities of the teachers, the staff: student ratios in relation to length and number of courses permit better teaching in some subjects than in others; the teaching of small groups at a time for example, compared with having to teach large numbers *en masse*. Biochemistry and Pharmacology are not the most favourably placed in this respect.

However, we have some evidence before us that there are medical students who regard their teaching in Biochemistry as unsatisfactory and, whether this is justified or not, we, as senior teachers of that subject, would like to know why and in what respect. We would welcome constructive criticism or suggestions to assist us in the planning and organisation of our courses, for these are constantly under revision. We would also like to point out that this is not the first occasion on which we have sought student-opinion.

At the beginning of the course we advise new students to ask questions and to seek our help whenever needed, and we point out that if they have difficulty in understanding either their lectures or their reading they have only to ask, that if a student cannot hear the lecturer, cannot read what is written on the board, or cannot follow what is being said, he should say so and preferably at the time. Very few ask questions or seek our advice and such advice as we give concerning the art of learning is often ignored. Indeed, the only criticism we have so far received directly from preclinical students is that in Biochemistry we are exceptional in that we do not give the students tips as to what questions will be asked in the examinations! It has never been our policy to coach students with "model answers" to questions from which those in the examination will be selected, or to encourage parrot-learning, though it would be quite easy to do so if we were not conscious of our responsibilities and the standards we are expected to maintain.

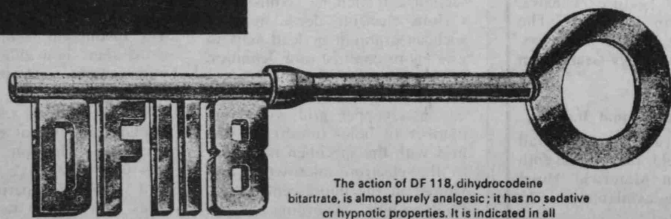
There is some evidence, that we have interpreted as vindicating our teaching methods and standards: it is the statistical evidence, based on examination results, that only with Biochemistry is there correlation between performance in a preclinical subject with performance in later years.

Doris Edna Gray
E. O'F. Walsh

It is said that statistics disprove everything but prove nothing.—Ed.

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LOOKING BACK

I have borrowed the title for this brief reminiscence from that of Guy de Maupassant's touching little story in which the aging priest, the Abbé Mauduit, tells a friend why, though fond of children, he had chosen the lonely, celibate life of a curé. I too am looking back through the years. The eruptions of disquiet and apparent unhappiness of many students throughout the world today offer such striking contrast to my own recollections of being a student, for they were happy days indeed.

Looking back to my schooldays, I recall the occasion that inspired my determination to become a chemist. We were in the laboratory one Friday afternoon, observing the effects of dilute acids on iron filings. I held my test-tube entranced, watching the tiny bubbles of hydrogen appear and grow on the splinters of metal, then like balloons carry them in upward rush to the surface where they burst and let their charges fall. So the diminishing particles danced in the effervescent liquid until they disappeared, leaving but a dust of carbon at the bottom of the tube and a green colour as evidence of their having been. There was a faintly unpleasant but intriguing odour to this sorcery, the reason for which I enquired: it owed its origin I learnt to traces of acetylene and phosphine that were generated by the action of the nascent hydrogen on the carbon and phosphorus impurities in the iron.

A trivial experiment: but the whole material world took on a new significance for me that day when iron, the Martian metal, symbol of power and strength, the fabric of tools and weapons, of great bridges, railways, and mighty towers, revealed its solid substance to be ephemeral as a flake of snow. Ephemeral but not mortal, paradox though that may be, Mars was not destroyed for his invincible atoms were there still, a lovely green to mark

their attenuated presence, the hard green of bottle-glass, of crystals and minerals of the rocks. I walked home that day in a brave new world in which the earth, the waters, and the very air I breathed assumed a new unity, a reality I had not known before. Chemistry became the obvious language in which to read the books in the running brooks, sermons in stones, and good in everything.

From then on, books on the divine art consumed most of my literate attention — apart from Frank Richard's immortal story — though none adequately described the magic that could be conjured in a test-tube. My tolerant parents allowed me to build a laboratory in a corner of the bathroom, though they sometimes protested when I let loose nauseous vapours such as boys delight in.

On leaving school at sixteen, having matriculated with the expected distinction in chemistry, financial circumstances in those lean years of the depression precluded my direct entrance into the university. I had to get a job. A four year pharmaceutical apprenticeship, during which I worked long hours in a chemist's shop by day and attended lectures and laboratory courses in the evenings, preceded my becoming a full-time student. During this period, in which I was trained in the art of Galen and learned the secrets of the Borgias, I passed the intermediate examinations in the minimum time of two won a Leverhulme scholarship and this too by taking the evening B.Sc. course. I won a Leverhulme scholarship and the together with a college loan and some sacrifices by my parents supported a welcome sojourn in the Elysian Fields.

How well I recall the pride with which I donned my long, black, undergraduate gown for the first time: no royal cloak of purple could have bestowed more sense of responsibility or more subtly blended

dignity with humility. Such customs, for it was compulsory to wear gowns to lectures, I believe have been too lightly discarded.

How well I recall the academic tranquillity of the college grounds at Nottingham, tall Turkey Oaks flanking the drive, the cool lawns and spreading cedars with a view of massed rhododendrons across the lake, the lunch-hour strolls when we discussed the meaning of life, religion, philosophy, the arts, and politics. There were music recitals in the Great Hall on Fridays after lunch — sandwiches in the balance room of the chem. lab., for I could not afford the luxury of refectory lunches — Saturday night "Hops", and the annual college Rag when we invaded the town in fancy dress and collected £3,000 for the General Hospital.

We had seventeen lectures a week, five chemistry and five botany together with the B.Sc. students, and worked hard in the laboratories, but I enjoyed it all, for I was doing what I wanted to do. Sometimes I wonder if I would have enjoyed it all so much if it had come more easily with a grant on leaving school as it does today. I doubt it.

Some of the lecturers were not good teachers, but they told us what to learn, were scholars of repute, authors of learned papers and books, and I felt it a privilege to attend their lectures. After all, it was a university, we were there to learn, not to be taught like schoolboys. There was one of our group who grumbled. He was the one who in the botany lab. one day when I was examining a specimen of *Chara* that I had found in the local canal exclaimed, "What on earth are you looking at that for, Walsh, it isn't in our syllabus!" He was the only one who did not pass all his finals the first time.

Some years later, when I returned to my old college as a lecturer, having in

the meantime added a first class honours degree in chemistry to my pharmaceutical chemist's qualification while working by day as a pharmacist at Guy's Hospital, the magic was there still. I was proud to be a Lecturer, a Don, and it enabled me to do research and work for my Ph.D., but it was a busy life for I was giving five lectures a week. Looking back then, I began to realise how easy was the life of an undergraduate, when all one had to do was to learn that which others had discovered. But I was happy, travelling hopefully as it were, gaining experience and working hard to qualify myself for greater responsibilities. I would have been less happy, I believe, if greater responsibilities had been thrust upon me before I was prepared for them. I wonder if some of the students of today, who are apparently not content to be students, but who seek a seat on the Senate and other such responsibilities, really know what they may be letting themselves in for. I am not suggesting that they are wrong, but I think their fellow students should be very careful whom they entrust with such responsibilities and should remember the ancient wisdom; that those who aggressively seek power often have ulterior motives and are those who most readily abuse it. The Doges of Venice were more benevolent masters than those who exploit the gullibility of "militant youth" to support their dictatorship of a modern totalitarian state.

Think upon these things as I conclude with the closing lines of Guy de Maupassant's story. The Abbé Mauduit has just bid his friend, goodnight. "... she watched his slow-moving shadow in the light of his lantern plunge into the darkness. Then she went back and sat down by the fire, and thought of many things that do not occur to the young."

E. O'F. Walsh

FACTS AND FANCIES

"CARRY ON DOCTORS!"

During a ward round a patient was found to have a paraffinoma on his face due to a previous plastic surgery.

Tutor: "Where else can we also find paraffinoma?"

Student: "Inguinal region, Sir."

Tutor: "... "

While the student was delivering the history, the tutor examined the patient. With the ear-plugs of the stethoscope in his ears, the tutor said, "Come on! Don't stop talking! I am listening."

Marvellous!

Student: "Since the mass moves with respiration, there is no shadow of doubt that the mass is the liver." Although there is some shadow of doubt about this statement, yet there is no shadow of doubt that this young man attends his medicine lectures.

A patient was found to have a bursa over the ischial region.

Tutor: "What is the treatment?"

Student: "If the bursa does not give the patient any trouble, we can leave it alone. In this case the patient experiences no discomfort if he sits on a soft subject."

Tutor: "What soft subject? You?"

(Note: "To sit on" also means "to brood over").

by 008

In this time when university reform is on everybody's mind I hear a voice in the "wilderness", "Why didn't you wear a gown to the viva? You think you are going on a picnic?"

by Observer.

CLASS NEWS

First Year

The Organic Chemistry Examination was held on 29th April.

A Class Dinner was organised at the Medic Canteen on 2nd May. It was a hilarious gathering. Bursts of laughter and singing shook the Medic Centre.

Second Year

Although the 1st M.B. Exams. are over, they are by no means free from examinations. The Psychology Examination will be held on 19th May.

The Class Association organised a Class Dinner at Connaught Room, Mandarin Hotel on 18th April. The occasion was graced by the presence of the three Professors of the Preclinical Departments and their staff, Mr. & Mrs. Collins, Mr. Low of the Physical Education Department, and Dr. Ho & Mr. Rocheford



Pathologists vs III yr. Medics.

of the Psychology Department. The highlight of the evening was the Grand Fashion Show of paper-dress put up by the students. Mr. Edward Ma and Miss Irene Chan emerged as the Mr. & Miss Second Year, 1968-69.

A friendly soccer match was played against the First Year Team on 19th April. Half-time score was 2-0 in favour of the First Year, but the Second Year somehow managed to turn the tables by finishing with a victory of 3-2.

Third Year

In a friendly soccer match with the Staff of the Pathology Department on 25th April, the Third Year Team lost by 2-4. The Second M. B. Exams. (Part I) results were announced on 30th April. Prizes and Medals were awarded to the following students:

Li Shu Fan Medical Foundation Prize in Pharmacology — Fu Kuo Fai.

C. P. Fong Gold Medal in Pathology — Chin Chu Wah.

Fourth Year

Because the Class is now divided into five Specialty Clerkship Groups of Medicine, Surgery, Obstetrics, Gynaecology and Paediatrics, class functions are accordingly modified to group or inter-group functions.

The Group at Tsan Yuk Hospital held a social gathering, in which each participant brought his own partner. The Group at Medic Centre Hostel was even more energetic. Two social gatherings were held, one with nurses and the other with ladies from Maryknoll Convent School.

OFFICIAL OPENING OF THE ELECTRON MICROSCOPE UNIT

The Electron Microscope Unit of the University of Hong Kong was officially opened on April 16, 1969 at 3.15 p.m. by Dr. the Hon. J.A.H. Saunders, Chairman of the stewards of the Royal Hong Kong Jockey Club. Guests present consisted of the Stewards of the Jockey Club, the staff members from the Faculties of Medicine and Science and the Chairman of the Medical Society. They were greeted at the gate of the Pathology Building by the Vice-Chancellor, Professor Gibson and Professor Huang. Following a brief speech from the Vice-Chancellor, the unit was unveiled by Dr. the Hon. J.A.H. Saunders.

The new unit, which is established and equipped with the help of a generous grant from the Royal Hong Kong Jockey Club (Charities) Ltd. made early last year, is housed in the University's Pathology Building in the Queen Mary Hospital Compound. The unit is supplied with a Philips EM300, the first major electron microscope in Hong Kong capable of direct magnifications of 220 to 500,000 times



The Opening Ceremony

and able to visualise minute particles such as viruses and minute components of cells and other structures. It will enable the staff of the medical and Science departments in the University to take up many new research fields of importance to Hong Kong without going abroad to find the necessary equipment. The facilities which will now become available here will greatly advance the opportunities for scientific education in Hong Kong.

G. Ng

Intergroup ball games were organised, among which were three football games: Gp. 1 vs. Gp. 4, Gp. 2 vs. Gp. 4, and Gp. 2 vs. Gp. 3.

Final Year

The Final M. B. Exams. were held on: 28th April: Medicine, 29th: April Surgery, 30th April:

Gynaecology & Obstetrics, Paediatrics (semicolor); 3rd-16th May: Clinical Examinations & Vivas.

Results are to be published by the end of May. They are going to hold their graduation Dinner in Mandarin Hotel on 21st May. The Newspaper wishes the candidates every success in the examination.

秋葉

「馬尼拉第二十三號飛機被劫。」
「那播音員就把我弄得心神恍惚。」
「幸而，又不是她的笑穴飛。」
「笑得，而且很快這一個不是，即使下一個也不。」
「天氣一樣。雖然這一個不是，即使下一個也不。」
「妳不要離開這裏，好嗎？——我對妳說。但妳說我一下覺得自己是如此的外子氣。妳飛過的那架安祥的鴨，像在那個遙遠的路程。」
「希望現在它突然爆炸了，至少我可以有多些日子和妳在一起。」
「強，不要在一起胡思亂想，如今一切都不可能改變了。」
「至少妳應該早一點告訴我。」
「妳嘆了一口氣，也沒有回答我。」
「妳已經釋放了。」
「妳，跟我昨天走走，好不好？電話給我特別的事告訴妳。」
「我就把我抓進這萬劫不復的惡夢裏。起初我滿，而它就把我抓進這萬劫不復的惡夢裏。」
「心高興的，以為我一定是想出了一些什麼新奇的。」
「主意。」
「妳來了，我然後是覺得那完完全全是那麼回事。」
「妳是不相信隨妳的家人一起搬到外國去。」
「聽了簡直是不相信自己的耳朵。」
「還是妳在說笑話嗎？但過了一會，我明白這是事實。」
「但為什麼呢？為什麼這偏偏要發生在我身上？」
「上呢？是命運和我作對嗎？但在很久的時候以前，我已經知道和命運妥協了嗎？在我很小的時候，我已經學會了。」
「我清楚的是，除了人難過的事，我不關心任何。」
「我曾經被決定了一個人的事，外人不關任何。」
「多年來我一直忍受着，每一個人的誤解和罪惡。」
「到幾個月前，我遇到了一個，以為這多年的忍耐只得到了酬報。」
「但命運竟然背了約，在這個世界裏我得到了一個，而它竟然把妳帶走。」
「我當時只是什麼要妳？一個，而它竟然把妳帶走。」
「一個中學生。」
「但為什麼現在才告訴妳呢？」
「我本來不願意告訴妳的，我預備走了以後才寫信向妳解釋。」
「那會像妳解釋。」
「我，我不想像妳這樣，但也不忍看着妳難過，所以現在才告訴妳。」
「候機室外面沒有多少人，也沒有風，但却冷得可怕。」
「妳強笑着，我把妳搖搖着，說着。」
「在機前作鬼臉，以後每次看到照片都笑上半天。」
「『強，不要拍了，我再也笑不出來了。』」
「『當然，記得那些怪相嗎？』」
「妳常常想問我要回到底，我一直都不肯給妳。」

[illegible]

Dequalinium Chloride

Surface-active agents are substances that alter energy relations at interfaces and are widely used in industry and the home as wetting agents, detergents and emulsifiers. Some members of this group are able to precipitate or denature proteins and destroy micro-organisms. Jacobs con-

In 1948, Barlow and Ing in Oxford and Paton and Zaimis in London published papers on the paralysing activity of a group of chemical compounds known as quaternary ammonium salts. The muscle relaxant activities of the dexamethylene bis-quaternary

Quaternary ammonium compounds are basically formed from tertiary amines, the latter being analogous to ammonia in which three hydrogen atoms have been replaced by alkyl groups e.g. methyl, ethyl etc. The amine is then treated with an alkyl halide such as methyl iodide to form the quaternary salt. The part of the molecule containing the nitrogen atom (cation) is positively charged and the halogen moiety (anion) is negatively charged. Many well known antiseptics other than dequalinium chloride are quaternary ammonium salts, the best known being cetrimide, benzalkonium and hibitane. The quaternary ammonium compounds have, in fact, an impressive and versatile catalogue of pharmacological properties, differing members possessing one or more of the following properties—antibacterial, antifungal, antiparasitic, neuromuscular blocking, ganglionic blocking and surface active. Succinylcholine, for example, is a quaternary ammonium compound used as a short-acting, depolarising neuro-

This has been a short look at one particular member of a very large group of non-antibiotic chemotherapeutic agents. Many of these agents are both effective and safe in the treatment of minor topical and local infections with, in the case of de-

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qualinium chloride, little chance of bacterial resistance arising. There is a great need to conserve the antibiotics we have and might have in the future for the treatment of conditions deserving of their potency and efficacy. If we do not, and continue to use them in the treatment of such minor infections and lesions, then we will rapidly reach the situation in which resistance to their effect is the rule, rather than the exception. Now is the time to study all the drugs available for the treatment of infection and choose wisely with both the present and the future in mind.