HONG KONG COLLEGE OF PHYSICIANS

SYNAPSE CONTROLLED TO THE STATE OF THE STATE

JANUARY 2006

RESTRICTED TO MEMBERS ONLY



Beauty and Pureness

This picture of two birds was drawn by Mr Chan, who was a terminally ill patient cared for by the palliative team at Ruttonjee Hospital. The drawing of the birds was completed with wooden colour pencils to symbolise beauty and pureness. His wife has kindly allowed Synapse to print this drawing in memory of her husband.

Contents

Special Articles

The President's Annual Report 2005

KN Lai

President's Address to the Congregation

KN Lai

AJS McFadzean Oration

Andrew Sheng

Medicine and Capital Markets

Introduction to the Gerald Choa Memorial Lecture 2005 Richard Yu Gerald Choa Memorial Lecture 2005

Beyond the Practise of Medicine

CH Leong

Council News

Scientific Section \equiv

Specialty Update - Rheumatology

Maida Wong, CS Lau

The Avian Flu Pandemic - looking at all the facts. What really happened in 1918, 1957 and 1968

WH Seto

Sir David Todd Lecture

Raymond Tak Fai Cheung

Functional CT and MRI Studies in Stroke

Best Thesis Award (Gold Award Winner)

Tse Wai Choi Eric

Potential role of Lmo4 in the pathogenesis of

Lmo2-induced T-cell acute lymphoblastic leukaemia

Lau Siu Wah Herrick

Best Thesis Award (Silver Award Winner)

Detection of asymptomatic diabetic distal symmetric polyneuropathy with clinical examination and nerve conduction study in patients with Non-insulin

Risk of subacute stent thrombosis after drug-eluting stent implantation: A comparison with bare-metal stents

dependent diabetes mellitus (NIDDM) Best Thesis Award (Bronze Award Winner)

Kum Chi Chiu Leo

26

Training ====

Planning and Writing of Dissertation and Dissertation Appraisal Operational Guidelines for Trainers and Examiners

Planning and Writing of Dissertation and Dissertation Appraisal **Operational Guidelines for Trainees**

Statistics on No. of Fellows in all Specialties Statistics on No. of Trainees in all Specialties

Examinations and Results

Announcements =

Profile Doctor ≡

Professor Gary Nicholls

John Mackay

SYNAPSE



Room 603 Hong Kong Academy of Medicine Jockey Club Building 99 Wong Chuk Hang Road Aberdeen Hong Kong

Tel 2871 8766 Fax 2556 9047 email hkcp@netvigator.com College Website http://www.hkcp.org

Synapse Editorial Board

Editor-in-Chief : Dr Matthew MT NG

Executive Editor : Dr Carolyn PL KNG

Assistant Editor : Dr John MACKAY

: Dr ML SZETO

Prof CS LAU Dr Jenny YY LEUNG Dr TF CHAN Dr Johnny CHAN

Dr Yannie OY SOO

Ex Chief-Editor : Dr Philip KT LI

All Copyrights reserved by the Hong Kong College of Physicians and no part of the Synapse can be reproduced without the prior approval from the Hong Kong College of Physicians.



Professor KN Lai delivering the President's Annual Report

The President's Annual Report 2005

KN Lai 🗏

President, Hong Kong College of Physicians

n the year of the Rooster 2005, Hong Kong SAR has witnessed the gradual recovery of the local economy, despite the constant threat of Avian flu in Asia. The dark shadow of SARS appears to have deifted away from our region, hopefully forever. Our Fellows, Members and Trainees havung weathered the devastating onslaught of the deadly coronovirus so gallantly and successfully, in one of the darkest chapters of the medical history of Hong Kong, have now helped our College to regain her vitality and gather full momentum to progress forward.

Professor Richard Yu has relinquished his Presidency after two full terms of six years marked by his tremendously hard work, devotion and vision.

This is my first annual report since being elected to the Presidency in October 2004. I appreciate greatly of the support from the Council and I would like to thank all Fellows and Members for having given me the opportunity and honour to serve you. With the rapid and visionary development of the College under Professor Yu in the last six years, my first task is to consolidate our achievement and to uphold the present College direction of global networking with other major physician colleges. The College moved into a new premises in late 2004 with a floor area of 200 square meters providing us additional space to conduct annual and exit examinations in higher physician training. Because of the increasing demand on examinations and the Continuous Professional Development program, the College has re-established her full complement of supporting secretarial staff. Most importantly, the College is working towards the computerization of training and examination matters with the aim that paper documentation concerning Fellows and Members will ultimately be conducted from a desktop computer using the Web.

The Annual Report it outlines the various events and achievement of all the College Committees and requires no further elaboration. My heartiest gratitude and appreciation goes to all Chairmen, Members of the Committee, the Boards and the Secretariat for having done such a magnificent job. Briefly, I would like to highlight some of the important changes.

Education and Accreditation Committee

Under the very capable Chairmanship of Dr. Loretta Yam the committee has improved the examination format, scoring system, remedial training

program, and written guideline for the dissertation thesis. Format and examples of previous dissertation theses are available from the College website to supervisors and trainees for reference. The Committee is planning to update the Guidelines on Postgraduate Training in Internal Medicine setting a target of publishing the Fourth Edition in late 2006. Several new developments in training were established in the last 12 months.

- Since different specialty services may be separately situated in different hospitals within a cluster, the College recommends that all hospitals should organize cluster- based generic rotation of 24 months for BPT, while cross- cluster rotations are also encouraged depending on need.
- Formal training plans should also be individualized on trainee registration so that Basic Physician Trainees can be assured of a rotation program within cluster hospitals to ensure fulfillment of training in acute medicine as well as convalescent and chronic care.
- 3. The College also appointed Senior Medical Officers or Associate Consultants to assist Program Directors in assisting, managing and monitoring BPT trainees and their training programs. Their contribution to the training and accreditation function of the College is highly appreciated.
- 4. A Higher Physician Subcommittee was established under the Examination Committee and is chaired by Prof Yu, with Dr CS Li as secretary. Its function is to set policies and guidelines in the conduct of Annual and Exit Assessment exercises. The examination format is structural and fully vetted by a panel of examiner prior to the examination for accuracy and fairness.
- The revised guidelines on Continuing Medical Education (CME) / Continuous Professional Development (CPD), applicable to all Academy Fellows of our College, were endorsed by the College and the Hong Kong Academy of Medicine. To facilitate interpretation by Fellows, the College has also released a set of Operational Guidelines on CME/CPD detailing the CME/CPD Points and requirements of each category. These two Guidelines have been sent to all College Fellows, Members and Trainees in June 2005. The new guideline stipulates the requirement of more active participation under the new CPD system.

National and International Liaison Committee

Under the dedicated Chairmanship of Professor W.K. Lam, the committee has been instrumental in establishing the following new programs.

- Nomination and Vetting Subcommittees (the Committees) have been established under the Council to nominate and vet nominations for London or Edinburgh College Fellowship for Hong Kong Physicians. Criteria are clearly laid down by the Colleges.
- The London College has proposed an International Sponsorship Scheme, which is a new scheme designed for overseas doctors who wish to undertake part of their specialist training in the UK. Under the scheme, overseas doctors can be exempted from the Professional and Linguistic Assessment Board (PLAB) test before they are eligible for limited registration. The scheme was intended for those who have a firm commitment to return to their home country to practise at the end of the sponsored period. The London College will only consider sponsoring overseas doctors who have already been offered a post in the UK at a SHO or Registrar grade. Thus preliminary agreement with a UK hospital or university is required. A Trainee who wishes to join the scheme must hold MRCP (UK) Part 1 or a recognized higher medical qualification or degree of their home country and must have completed at least 2 years of medical practice in their home country.

Examination Committee

A new Memorandum of Understanding on the Joint MRCP(UK)/ HKCPIE examination was signed by the four Presidents of our College, Royal College of Physicians of London, Royal College of Physicians of Edinburgh and Royal College of Physicians and Surgeons of Glasgow in October 2004. The Joint MRCP(UK)/ HKCPIE Part II written examination will be expanded to 3 papers in December 2005. Annually, two written Part I, three written Part II, and two clinical PACES examination are now held in Hong Kong.

Scientific Committee

The Scientific Committee had organized a Joint Scientific Meeting of Hong Kong College of Physicians and Hong Kong College of Paediatricians on October 23-24, 2004. This year, the Scientific Committee has again organized an exciting annual scientific meeting on November 5-6, 2005.



The Research Committee has selected four young investigators for a Distinguished Research Paper Award. All are invited to present their papers at the Annual Scientific Meeting of the College in November 2005, with a medal to be awarded to the best presenter.

Membership Committee

As of 31 August 2005, 56 applicants were proposed for Membership and 43 applicants for Fellowship.

Professional and General Affairs Committee

The Committee continues to handle issues related to professional and general medical affairs this year. Major issues include drug and food toxicology, and anti-smoking.

Report from Synapse

Dr Matthew Ng serves as the Editor-in-Chief while Dr. Carolyn Kng is the new Executive Editor. The editorial committee has been strengthened by a group of youthful and talented co-editors. We have a new publisher and the College Newsletter has adopted a colourful and modern lay-out.

Administration and Finance Committee

We are grateful to our Hon. Treasurer for his very shrewd book- keeping such that the College remains in a healthy state financially.

Finally no word of appreciation or thanks can express my gratitude to the two Vice-Presidents, Chairpersons of different committees, College Council members, and the previous Presidents for their invaluable support and advice. My final vote of thanks goes to all the very hardworking secretaries of the College who have maintained our engine running smoothly.



The HKCP Council 2005-2006

President's Address to the Congregation

(5 November 2005)

KN Lai ≡

President, Hong Kong College of Physicians

oday is a great day for the College. For we gather here to witness 59 physicians being admitted to the Fellowship and another 75 to our Membership following their successful qualification examinations. Let me extend the College's congratulations and blessings to the new Members and Fellows. This is also the first occasion at which I have the pleasure to address the Annual General Meeting and Fellowship conferment since my election to the College Presidency 12 months ago. Over the last one year, I have attended many annual meetings and fellowship conferments of our Academy sister colleges. The advice given by their Presidents to the new Fellows ranged from continuous professional development, clinical responsibility, risk management, to the establishment of our professional practice in China through Closer Economic Partnership Arrangement (CEPA). One may then ask what is my advice to our new Members and Fellows, on this occasion. My advice is neither missionary nor morally demanding. In fact, it is very simple – take a nice photograph of yourself with your beloved family today. Put down on the back of the photo your target, aim, or even ambition. Then at different stages of your career, take another photo and do the same. Years later, on looking back, you will start to realize how your career has been shaped and you will appreciate your many failures and also successes.

One may then ask why choose taking a photo. It is not because of the hobby of our immediate President who is a prize-winning maestro in photography. A picture is everlasting. Photographs record moments in time, both monumental and mundane, that can be experienced vicariously, yet vividly, through visual image. It captures your vision and ideal, and reflects your inner soul. I still remember the night during the farewell dinner of Professor Sir David Todd and Professor Rosie Young ten years ago when old photographs of members of the University Department of Medicine at the HKU were shown. I was amazed and deeply touched when I saw my own picture taken at the time of my university entrance being projected on the screen. I asked myself: is that me? The person on the screen looked naïve, green, and fearless. Indeed, I later fully understood why Mr. Lien Chan, the immediate past chairman of the Kuomintang in Taiwan, was so deeply moved when he received a gift during his visit to Beijing University – a photo of his mother while attending the Yenching University at the age of 18. Again, the picture showed the youth, ideal, devotion and imagination that may have long been hidden or forgotten. The persons in these pictures in their youth may look naive and unsophisticated. Unfortunately nowadays, the word "naiveness" has often been misinterpreted as lack of maturity and becomes a long forgotten virtue in our society. Naive sometimes connotes a credulity that impedes effective functioning in a practical and materialistic world and it is rapidly disappearing amongst us. One day, when you look at these old pictures again, you will be surprised how our naiveness was quickly lost, targets frequently altered, promises sadly broken, and ideals unwillingly compromised. Nevertheless, I trust the words on the back of these pictures will

always remind you to navigate yourself towards your ideal no matter how zigzag the path has been.

As we lose our naiveness, we tend to lose the ability to say "no" at the same time. Not infrequently, the word "no" disappears from one's vocabulary and soon one develops into the prototype of "Yes, minister" in the famous British TV series. In our profession as clinicians, we are still privileged and never hesitate to say "no" when matters or issues are deemed to be unjust or inappropriate. The Hospital Authority once introduced the corporate concept of treating our patients as clients who, sometimes, expected to be served and did not tolerate the word "no". I was brought up in the era that we were taught to treat our patients as partners, with courtesy and respect. Nonetheless, we must preserve our integrity and rightful judgment to say "no", may-be tactfully or politely, if we believe what we are doing is correct and good for our patients. In our daily encounters, we must not be afraid to say "no", no matter whether to our seniors, colleagues, patients, the press or even the legislators if we are acting with our conscience and awareness of moral and ethical conduct.

Finally, let me conclude my address by telling you my recent conversation with a young intern who was considering taking physician training as her career. She wanted to know why I chose Internal Medicine and how do I feel after 30 years practicing as a physician or internist. I told her that Internal Medicine is always the cornerstone of Medicine. Internal Medicine interacts with different branches of basic sciences as well as other clinical specialties. More often than not, Internal Medicine champions the development of novel diagnostic and therapeutic technologies. The joy and excitement in my 30-year career in practicing Internal Medicine is best summarized by the lyrics from one of my favorite musicals – 'Sunset Boulevard'. It is from a duet sung by Norma Desmond, the queen of silent movies in 1920 and Cecil B. De Mille, the Oscarwinning director whose films included 'CLEOPATRA' and 'The TEN COMMANDMENTS.'

Let me quote:

"Those were the days
Just like before
We had such fun
We gave the world new ways to dream
We always found new ways to dream"

Maybe some of our College Council members, like me, will soon be too old to carry the dream in the next decade. But I am confident that, amongst our young Members and Fellows, whom the College admits tonight, many will step forward to realize our new dream to the next horizon.

With this, I wish you every success in your future career and a very pleasant evening.

Thank you

AJS McFadzean Oration Medicine and Capital Markets

Andrew Sheng¹

Chairman, Securities and Futures Commission

Professor KN Lai.

Distinguished Physicians,

Ladies and Gentlemen,

want to thank Professor KN Lai for the honour of giving the 10th AJS McFadzean Oration to such an august gathering of the crème de la crème of Hong Kong physicians.

I have a confession to make. I know next to nothing about medicine. My proximity to medicine is limited to my annual physical check-up and my brother-in-law's family, which produced at last count at least 10 doctors in the family, of which Professor Lai is related to me via his better half, Dr Diana Siu. When I proposed the topic of Medicine and Capital Markets, I was not aware that it would become so topical because of Avian bird flu, Tamiflu and the current global concern of pandemics.

I have to confess further that I feel particularly awed in this company, since we all know that the best and brightest in Hong Kong go on to read medicine, whereas some of us like myself who could never remember Latin names for parts of the anatomy decided to do easier subjects like economics. The difference is that when doctors make mistakes, they can bury their patients, whereas when economists make mistakes, they merely ruin them.

Consequently, I shall try to tell you about capital markets. In other words, the whole purpose of an oration is not to give profound thoughts this evening, but to entertain you with cheap advice about markets in exchange for less expensive medical advice. In between we can try to see where is the nexus between medicine and capital markets.

Let's start with similarities.

LINKED² – NEURAL AND FINANCIAL NETWORKS

In the past, doctors trained in the Western tradition thought of the human body as a biochemical system that you treated with drugs, or bone and tissue that could be surgically treated. Today, they are seeing the human body as an electrical field of neural networks.



Prof WK Lam, Vice President (HKCP) presents Mr Andrew Sheng with the AJS McFadzean Medal

The Chinese have always suspected this interconnectivity through acupuncture.

Capital markets are also networks, across which property rights which we conveniently call money, is traded. Local markets are local networks and global networks are networks of local networks. Economists like to say that money is the lifeblood of markets.

Now, markets share many similarities with human bodies. They evolve over time and change. Many businessmen assume that markets can be created overnight and all free markets need is less government to allow market forces to work. We increasingly realize that this is a naïve way of looking at markets. Like the human body, we know far less about how markets evolve and behave than we care to admit. Markets are the cumulative results of millions of decisions, some random, some collective herding and often unpredictable. Markets, like life and the Internet, are what are known as scale-free networks, growing, completing and evolving in mysterious ways. They inter-connect nodes, and that linkage follows power laws and preferential attachment that creates hubs, clusters and move from chaos to order through self-organization.

I spent the better part of my life dealing with problem banks and financial behaviour and I came to the conclusion that the same methodology applies in diagnosis, damage control, prognosis and finally changing behaviour or lifestyles – otherwise the health crisis repeats itself.

Money has a network;

Medicine has a network;

Guanxi is the network.

^{1.} The views expressed in this speech are totally personal.

^{2.} Albert-Laszlo Barabasi, "Linked – How Everything is Connected to Everything Else and What It Means for Business, Science and Everyday Life", Penguin, 2003

The danger of specialization is that you learn more and more about less and less. I am told that if you become a surgeon, you won't understand much about your patient's diseases, but you can do a lot to help them. If you study internal medicine, you understand a lot about human disease, but you will be able to help only a little. If you become a pathologist, after the autopsy you will know everything about the patient, but it's too late to do anything about it.

This must also be true of policy-makers. Those who think that public health issues can be simply solved by free markets are too simple and too naïve. There are three broad components of medicine: curative services, preventive services and essential public health functions.

Curative services are private goods that can be priced by individual supply and demand. If I break a leg like Professor KN Lai, I can negotiate whether I go to the best orthopaedic surgeon or the local Chinese bone healer, with different prices.

Preventive services have both private and public good aspects. For example, immunization prevents illness and is good not only for the individual and also the public. So individuals will pay for immunization.

Public health functions, such as disease surveillance, population health assessment and health education are pure public goods which individuals will not pay for, but if the budget does not bear this, the curative costs for society could be very high indeed.

In other words, we need to take a total or holistic perspective of the problems we face. Hence, the world of medicine and markets are all linked through money, because medicine cannot function without money. The intersection of medicine and capital markets is nowhere more clear than the health crisis that we are facing and likely to face in this interconnected world - the likelihood of a viral pandemic that was first stopped in this city in 1997 when we slaughtered 5 million chicken but also gained fame through SARS.

What are the economic effects of the next pandemic? How can we stop it? What are the resource implications? How can we afford our present health system? I am not the best equipped to answer these questions, but these intersections of money and medicine are profound and are not properly debated until the health crisis is almost upon us. It will not simply be a health crisis, but a financial crisis of the first order.

After 9/11, SARS and the Tsunami, we have become aware how vulnerable modern society and financial markets can be. It was fortunate that 9/11 did not take down New York as the largest financial hub in the world, but if the pandemic were to contaminate any of the large financial centres in the world, so that only one or two of them could not function, the financial damage



could be incalculable. In the past, the ripple effects of total damage in key hubs used to be considered low probability, but the risks are today definitely non-zero.

Markets and Health Care

Having scared you about the possible effects of pandemics, let me provoke you further with the area of health care and costs, which is more mundane but topical, particularly because Hong Kong itself is going through a major health care reform programme. Fortunately, as I am no longer a public official, I can take some liberties in expressing some views in this area.

Health care and markets is an emerging area because I belong to the generation of baby boomers that is about to retire in massive numbers over the next five years. In the US alone, 77 million (or nearly one-quarter of the population) will reach the age of 60 on 1 January 2006. There is a US health dictum that shocked me when I first heard it – 50% of an American's medical costs are incurred in the last six months of his or her life. Health care alone accounts for US\$2 trillion or 17% of US GDP. Annual drug costs alone are US\$200 billion annually. In Hong Kong, health care costs are 12-13% of our government budget and rising because of our aging population. Whether we can afford the present system is a huge policy issue. And if we cannot afford this on the public purse, can we leave medicine and public health to free markets?

Without commenting on the situation in Hong Kong, which you know much better than me and each may have a professional opinion, let me draw some big picture lessons from international experience.

First, the cost of bringing new drugs into the market in the US costs roughly between US\$50-\$150 million, with no guarantee as to success in addition to the high litigation risks of bad side effects. This has raised the costs of medicine to higher and higher levels³. Litigation insurance costs add to the costs. Companies recover their investments through pushing these drugs to the community, sometimes without fully understanding the seriousness of the side effects. You all know what happened to the Vioxx-heart disease debacle.

^{3.} Jerry Avon, "Powerful Medicines", Vintage Books, August 2005.

Peyvand Khaleghian and Monica Das Gupta, "Public Management and Essential Public Health Functions", World Bank Policy Research Working Paper 3220, February 2004.

Special Articles

Furthermore, you get strange situations where the same drug can sell for US\$4 per pill in the US, US\$2 in Canada, 40 cents in Mexico and probably 10 cents for a similar drug in India. The unwillingness of drug companies to admit that very similar drugs can be sold much cheaper to help prevent disease in emerging markets is an attempt to protect their profits. But if diseases that can be stopped in the poor countries ultimately spread, like AIDs or malaria, to the rich countries, everyone suffers. The health question is now global.

Secondly, the demands of society on health are such that the public increasingly insists that the state provide not only basic health amenities, but also the best medical attention at the individual case level. But resources are clearly never enough versus the demands.

The privatization of medical facilities brings also its own set of problems. Recently, even the Chinese authorities admit that using market principles to allocate health facilities in the Mainland, such as user-pay principles, have created serious deterioration in access to basic medicine by rural people and the poor. The barefoot doctor programme was very successful because it dealt with health education and basic health care at the rural level.

Every society has limited resources to spend on public health. Where do you allocate such funds – to prevent disease or to cure it? For example, Fareed Zakaria in the latest copy of Newsweek puts it very starkly – the US annual research funding on influenza is US\$119 million, whereas the funding for the cost of the new fighter aircraft is US\$4.5 billion. Influenza drugs can prevent millions from dying, whereas fighter aircraft can either start a war or at best, stop some other aircraft, but is useless against missiles.

Another US example is that after 9/11, billions were spent on anti-terrorism action, but hardly any money is spent on emergency wards where 80% of patients will converge in case of such attacks.

The second issue is that the full costs of a course of 10 Tamiflu pills for 5 days is currently US\$80-90. How can the poor afford this?

The pandemic issue is a classic case of different parts of the bureaucracy dealing with the same problem. Is the Avian virus problem one belonging to the department of agriculture, the department of the environment or the health department? Who makes the tough decisions coordinating the different bureaucracies?

I pose all these difficult questions without giving answers because even though I am a great believer and supporter of the free market, I have come to the awareness that markets alone cannot solve many complex issues of society. Medicine is not simply another business with a simple bottom-line in dollars and cents. Indeed, it is the quality of governance, namely, the way the social institutions deal with these complex issues, that determine how well we cope with the health, environmental and financial issues of our times. In other words, market forces cannot solve the

difficult policy issues about human life and health, since these are too complex to be valued in simple monetary terms.

Furthermore, policy makers and social scientists are becoming aware that silos of bureaucracies, including the medical and other professions, cannot solve social problems on their own. What is required is "consilience" – the pooling together of different minds, different disciplines and perspectives, that can arrive at the consensus and mutual understanding to solve these intractable problems.

To quote Harvard Professor Avorn: "Clinicians don't talk to pharmacologists much; economists and epidemiologists seem to live on their own separate planets; policy analysts, behavioural scientists, and anthropologists each study the way people use medicines but usually don't have much to say to one another about it." Doesn't this sound familiar to you in recent times in Hong Kong? Everywhere, legislators, businessmen, politicians, civil servants, academics, media and the professions all seem to be talking across each other, instead with each other. The result often is deadlock, frustration and ultimately, the sufferer is the public or the taxpayer.

My own conclusion on any complex area of social policy, especially drawing upon my own experience in securities market regulation, is that none of us is smarter than all of us. We need social cooperation, understanding and communication, between specialists and generalists, as well as the community, in order to move forward.

The Art of Making Money

I have spent much time on the serious stuff but now I shall move onto an area that I know really interests you – the art of making money. As you may know, the secret of making money around the world is very simple – it is called BLASH – Buy Low and Sell High. Except that in Hong Kong, I am told that some tycoons call it Buy High and Sell Higher.

In my job, I have experienced several economic cycles and have met many millionaires – except that before the Asian crisis, they were billionaires. My previous job prevents me from giving specific advice. Hence, I am bound by ethical reasons in not recommending anyone to buy any specific company, such as the manufacturers of anti-viral drugs.

However, I think it would be useful to talk about a few general principles of investments.

The first rule is that diversification of risks does lower your risks. The corollary of this is that it pays to diversify assets, but it does not pay to diversify your liabilities. Two simple anecdotes will illustrate this.

The famous Japanese management consultant, Dr Kenichi Ohmae, gave a piece of advice which I thought was very good and it is general enough for me to share with you. Living in Japan, he had his income in Yen, so he felt that the best way to distribute his assets was to put roughly one third in Yen, one third in dollars and one third in European assets. He also divided his assets into three parts, one third in real estate, one third in stocks and one third in bonds and cash, the last being the most liquid.

But what about liabilities? The Asian crisis told us that currency mismatch is the worst thing you can do. That is, if your income is in Indonesia rupiah, you do not borrow hugely in US dollars. Indeed, there is another corollary to this liability risk. If you borrow a million dollars, you are in trouble. If you borrow a billion, the bank is in trouble.

But where specifically should you put your money? This is a question that doctors know that it is impossible to generalize about, because it depends on the specific requirements and conditions of each patient. Specifically, it depends on your own time horizon, your risk appetite and your capacity to take risks. I can only say, as most general practitioners would do, refer to a real specialist. And if you do not know how to choose, ask around.

To sum up, investing in capital markets is very much like practicing medicine. You learn by making mistakes, but you cannot afford too many mistakes, Dabbling in derivative products where you do not understand the risks is like recommending a drug where the side effects are unclear to the user. It could be helpful, but only under the right conditions and supervision. Perhaps one day, all investment advisers should all take, like doctors, the 2,500year-old Hippocratic oath, "primum non nocere" – "above all, not knowingly to do harm". After all, bad advice can only ruin your clients.

To end, I apologize if I have offended anyone by being politically incorrect. The realm of capital markets and medicine involve not

only economists and doctors, but also lawyers. So let me finish with a story involving lawyers.

A coroner was being questioned by an attorney:-

"Doctor, before you performed the autopsy, did you check for a pulse?"

Doctor: "No".

Attorney: "Did you check for blood pressure?"

Doctor: "No."

Attorney: "Did you check for breathing?"

Doctor : "No."

Attorney: So it is possible that the patient was alive when you

began the autopsy?"

Doctor: "No"

Attorney: "How can you be so sure, Doctor?"

Witness: "Because his brain was sitting on my desk in a jar."

Attorney: "But could the patient have still been alive,

nevertheless?"

Witness: "Yes, it is possible that he could have been alive and

practicing law."

Thank you for giving the opportunity to entertain you tonight.

5 November, 2005.

Hong Kong.

Introduction to the Gerald Choa Memorial Lecture 2005

Richard Yu

Immediate Past President, Hong Kong College of Physicians

Professor Gerald Hugh Choa is an iconic figure in the saga of medicine and health in Hong Kong. The years of his manhood were spent unstintingly in service to the profession and the community. Many doctors can boast of achievements in practice, in research, in administration, or in education. Gerald was first-class in all four fields. As clinician-academicadministrator-educator, he was probably the greatest of our generation.

After establishing an international reputation as teacher in the University Department of Medicine after the war, Gerald joined the Government Medical and Health Department as Medical Specialist in the then Government Medical Unit in Queen Mary Hospital. He was appointed Director of Medical and Health Service in 1970. We are still enjoying the fruits of the reforms and innovations he introduced at that time. An administrator of Gerald's calibre was naturally not allowed to retire, so upon superannuation from the civil service in 1977 he was immediately captured by the Chinese University to be Founding Dean of its new Faculty of Medicine. Professor Choa shouldered the lion's share of work and responsibility in building a new teaching hospital and recruiting quality faculty – a feat accomplished with first class honours in a scarcely credible ten years.

Closer to home, Gerald was a Founding Fellow and one of the prime movers in the establishment of the HKCP. He served actively on the Council, and over the years became the College pundit-at-large and an always fertile and generous source of wisdom and foresight. The College has since established the Gerald Choa Memorial Lecture to honour the great man's memory, especially his seminal contributions to education and ethics.

This morning, we are fortunate to welcome as Lecturer an individual who shares Gerald's philosophy and who has shared many of his ideals and values over a career marked by great distinction in professional and public service. Our guest is one of the most popular and eloquent speakers in Hong Kong, with a CV boasting such prestigious assignments as the Hunterian, Digby Memorial and GB Ong Lectures and most recently the McFadzean Oration.

Professor Leong Che-hung needs no introduction. However, since it gives me great pleasure to once again sing his praises, allow me to recount one or two of C.H.'s great contributions to the medical and general communities of Hong Kong.

In academia, C.H. was Lecturer, Senior Lecturer and Reader in the Hong Kong University Department of Surgery at Queen Mary Hospital. His achievements and exploits as a teacher and researcher are legendary – and that includes the cold-feeling-inthe-stomach and fear frequently instilled in junior staff and students alike. Disposing of an administrative Gordian knot with flair and decisiveness, C.H. solved the dilemma and became the Founding President of the Hong Kong College of Surgeons, continuing on to become the President of the Hong Kong Academy of Medicine, and finally Chairman of the Hospital Authority. It is honourable and noble – but regrettable – that C.H. chose to resign as HA Chairman after the SARS episode due to evil forces working within the profession. This is not the time to talk about the reasons why - except to say that the muses of history and justice will exonerate C.H. Leong and bear witness to the adage "evil to those who evil do"!

C.H.'s record of public service is legion. The most controversial and well-known is perhaps his tenure in the Legislative Council (from 1988 to 2000), representing the Medical and Dental Constituency which tarnished his otherwise illustrious career. As Chairman of the Aids Foundation, C.H. devoted an enormous amount of energy and time to establish the Foundation on a sound footing both locally, in the Mainland and internationally – I think the gay community should present him with a medal, but God knows what form it will take! Appropriately at this stage of his career, C.H. was recently appointed to chair the Elderly Commission. His crowning glory – to date! – took the form of an invitation to join the SAR Chief Executive's cabinet as Executive Councillor. So C.H. is "Honourable" once again. I am confident that like the late Gerald Choa, he will contribute wisdom, foresight and sweet reason to the policy decisions upon which so much of our wealth and welfare depends.

May I now call upon Professor the Hon. C.H. Leong GBS to deliver the 4th Gerald Choa Memorial Lecture -- "Beyond the Practice of Medicine".

Gerald Choa Memorial Lecture 2005

Beyond the Practise of Medicine

CH Leong

Mr President

t is indeed an honour to be invited to deliver the Gerald Choa Memorial Lecture to the College of Physicians of Hong Kong. It is an exceptional honour for me to have a chance as a surgeon to address the College of Physicians twice within a year – the McFadzean Oration in 2004 and now the prestigious Gerald Choa Memorial Lecture. Perhaps I should alter my mindset instead to think as an Honorary Fellow of your pristine College.

I accepted the invitation to deliver the lecture with trepidation. Firstly the late Professor Gerald Choa had contributed so much to Hong Kong that no amount of words can do justice to his achievements. Secondly the giants of medicine who were my predecessors in this lectureship have imprinted such giant footsteps that I will never be able to match them. It is more than David versus Goliath.

Gerald Choa was a physician par excellence. He was the only physician, and his team the only physician team, that the University surgeons were willing to trust. Yet at the height of his clinical career he moved on to medical administration and policy formulation as the Director of Medical and Health Services. And, as if this was still not enough to fulfil his insatiable vision, he founded the Medical School of the Chinese University of Hong Kong from where up to today over a thousand – top rate doctors have been produced to serve the community.

It is on this aspect of Gerald Choa, beyond the call of duty of a physician, beyond the challenge of the practise of medicine that I would like to address you today namely:-

Beyond the Practise of Medicine which, includes:-

- To engage in treating society rather than just the patients and their pathologies.
- To enhance the culture of professionalism though proper medical education before and after graduation.
- To be able to predict social crisis and lead in crisis management.

These are no doubt the aspirations of the late Gerald Choa.

As a physician Gerald Choa was well aware of the scientific approach to medicine, and that a complete doctor must know



Prof R Yu presenting the medal to Dr CH Leong

thoroughly the intricacy of the human body. He believed however that even this was not enough if a doctor wanted to be an affective and efficient healer. He would have to know how the body interacts with the society at large. The effective health care providers would have to understand how the health care services interact with the society's need. More importantly, any leadership in the health care team would have to utilize the society's need to mould the health care service to achieve his ideal. Health care is a social issue, we as doctors therefore must learn more of the society at large to influence that society.

To us as doctors this means moving from confining our management of patients in clinics and hospitals to managing the society in a political arena. It must be so if we believe that the disharmony of society could well be the root of all diseases. We as healers of individuals cannot refrain from extending our role to heal the society. We must get ourselves to participate in the different tiers of Government, to make ourselves available to advise in formulation and execution of health and socially-related policies. We as doctors are in an advantageous role, for if our patients are willing to entrust their lives into our hands they should also entrust their social needs into our confidence.

There is definite room to be a physician par excellence and be at the same time an effective politician and societal leader. Many in our ranks have taken or attempt to take this challenge, but we need more.

Medical education extends much beyond the training of a trade or an occupation: it is the training of a profession. So too a medical school's role is to develop professionalism and inspire this culture into its graduands and the society. The difference between a trade or occupation and a profession lies in the following characteristics.

Firstly professionalism is the promotion of altruism, engaging in a society and social services. It requires extensive special educational training and more importantly a high degree of continuous improving knowledge. It also entails an ability and willingness to apply that knowledge and skill to a greater social good.

Professionalism is about the quest for autonomy, in the right to regulate, and finally, professionalism is the conformism to the development of a body of ethics.

Special Articles

A comparison of the core values of professionals and commercial organisations will highlight the importance of professionalism to consecrate the very function of trust upon which our social contracts rest, and by which the public is assured that medicine is fulfilling its sacred obligation. The areas to highlight of course are that professionalism is for service and not strict profit, for altruism and not for responsibility to stock holders and for humanism and not to consumerism. This is the role of the medical schools, the Academy of Medicine and all medical and health institutions who dare to stake a claim to represent the medical profession to any degree.

Crises are inevitable. Gerald Choa had his share during his time. With rational approaches and good tactics most of these were properly managed if not averted. Today, crisis looms around the corner and any leader of the medical profession must be alert and prepared to deal with the issue.

I would like to share with you five real crises that will impact on the medical profession and society at large in the course of time. This list is not exhaustive, nor am I "crying wolf", for the danger is lurking and the crises are real:-

- Crisis of the aging population
- Crisis of the collapse of the public medical service
- Crisis of breaking down of doctor/patient relationship
- Crisis of emergence or re-emergence of infectious diseases
- Crisis of immature democracy

Let me elaborate.

The Crisis of the Aging Population

The life expectancy of the Hong Kong people and for that matter, populations round the world, is growing rapidly. In the 1950's and 1960's the average life expectancy at birth was 50-60 years. Today, the life expectancy is in the region of 78 years for males and 81 years for females. Whilst it is good that we are all living longer, the crux of the matter is that the ratio between the young and the elderly is moving rapidly towards the elderly. Today, one in seven people in Hong Kong is over 65 years old. In 20 years time one in four will be over 65 years old.

What then is the crisis? It is obvious that there will be more and more elderly and by comparison fewer and fewer young people. Looking at it bluntly there will a decrease in the number of tax payers and an increasing number of retirees.

The leaders of today must start to look at this problem of social imbalance and consider ways and means, firstly to maintain the public financial position and secondly to take care of this enlarging elderly group to make sure that they are well looked-after, well cared for, maintaining their health and perhaps providing opportunities for them to resume work and gainful employment to cater for the needs of society.

The problem not only confronts the leadership of the Government but each and every one of us, be it in a Governmental sector or in the world of business. We might have to consider the issue of widening our tax base to boost Government's public revenue. We might have to make alterations to our retirement age or at least make provisions for gainful employment for those beyond the set retirement age. In his address to the Hospital Authority convention this year, your immediate past president had the vision to call for the training of more geriatricians.

Looking at it from a positive angle we may be able to employ elderly people with experience at a low salary level. Secondly, as more and more people fall into the elderly bracket, there will be a greater need for elderly carers and for products that cater for the elderly, thus opening up new career possibilities and new business opportunities, if not entirely new enterprises.

The Crisis of the Collapse of the Public Medical System

Hong Kong has a public medical system that is second to none. For \$100/day, or less if you are assessed to be at financial risk, you can have the best state of the art investigations and treatment. Many even have this amount waived. This is to honour the government motto that; "Nobody should be devoid of care because of lack of means."

Things were easy in bygone days when medical costs were cheap. Today medical costs are exorbitantly high, driven by:-

Rapidly rising cost of new medicines and new technology;

Aging population (over 40% of the Hospital Authority beds are occupied by people over 65)

Demands of the patients and public.

So as medical costs soar, the public health care service will find it difficult to make ends meet.

The figures show that in 1990, about 85% of sick people who needed hospitalisation were admitted to the Hospital Authority beds. Today this figure stands at 95-97%. The Hospital Authority has become a victim of its own success.

The end result is that the public medical service will collapse or at least the standards will drop, for it will be impossible to maintain a high standard when a finite budget is used to provide for an infinite need and demand.

To avert such a crisis, leaders of today and tomorrow must look into ways and means to remedy the situation, either to enlarge the public budget for health care or make provision for people to take up medical insurance and seek private services to relieve the public service load.

It takes time to promote this culture but it needs to start now before it is too late. Hong Kong people deserve a high standard of medical services.

The Crisis of Breaking down of Doctor/ Patients relationship

Medicine today is complicated in two areas. The spiralling cost of medicine has led to the search for more cost-effective medical practices. Overnight, medical practice has assumed a business mode. Patients are now labelled as "clients" and "customers" or "consumers". Overnight, the "care and concern professional relationship" has given way to the courteous and cold "business relationship". The service providers explore different ways to reduce cost, while the consumer explores every means to ensure that he or she is getting their moneys' worth. Conflicts become inevitable.

Added to this is the fact that, as coined by Peter Drycker, the 21st Century is a "knowledge society" era – knowledge obtained from Reader's Digest, Time Magazines, gossip columns and the Web. Armed with such perhaps half-baked, knowledge, consumers start to demand – demand why certain investigations are not done; demand to know other alternative treatment modalities; and demand an accurate projection of the degree of success and the percentage of side effects.

In Hong Kong this is further accentuated by the process of semi-matured democracy. Overnight, the public was given a vote which to them became a right – a right NOT to help improve the society but a right to demand. Fuelled by some politicians whose sole aim is to get votes, Hong Kong has assumed a "blame culture". Doctors are in the line of the firing squad.

To the ordinary doctors in the street the easiest thing to do is to succumb to whatever the patient demands, perhaps bend over backwards to do more and practise 'defensive medicine'. Overnight, 'opinion-based physician-led' medical service has given way to, 'patient-demanded' and 'public-led' health care service. The trust between doctor and patient is at an all time low and the time-honoured doctor – patient relationship shattered.

Regrettably the health care profession has to take some of the blame. The all too unnecessary political bickering within our ranks has resulted in the sour relationship between the Government and the profession, a chasm between the private and public sector, the specialists and the generalists, the doctors and the nurses, the seniors and the juniors, creating a golden opportunity for the media to play Peter against Paul. All this does not help to promote the image of the profession in the eyes of the public. The never-ending internal squabble, that is now into the public arena, of whether or not doctors need obligatory life-long learning, call it CME/CPD if you will, not just to better ourselves but to show public that we care, has made a laughing stock of the profession.

The Crisis of Emergence or Re-emergence of Infectious Disease

For some 50 years with the improvement of public health and better nutrition and sanitation in many parts of the world, it was thought that we could say goodbye to most infectious diseases. SARS has shown us that we were wrong. New infectious diseases are always lurking round the corner.

In 1997 Hong Kong was struck by Bird Flu (Avian Flu). Fortunately it did not get out of hand as we quickly killed all the chickens, yet

Avian Flu is still very much with us. The recent discovery that the same virus was found in dead bodies that killed millions of people in the "flu" epidemic of 1918 only shows that old infections are awaiting to make a come back.

Leaders in Government and those in Public Health must therefore be prepared not only to prevent a major disaster in Hong Kong, but to be ready should Hong Kong be hard hit. Other leaders must be alert too. Sick employees produce deterioration of services or production standards. Whilst Public Health to a large extend is Government's responsibility, yet each one of us must do our part to be responsible for our own health and to try at all costs to prevent ourselves from getting sick. The culture that health is everyone's business must be instilled into the people.

The Crisis of Immature Development of Democratisation

When Hong Kong was under colonial British rule, there was no democracy. So when progressive democratisation was introduced in the late 80's it was welcoming news.

Regrettably democratisation in Hong Kong is still very much in a developmental stage and dare I say, immature. Yes, the ultimate aim of democracy is a right to vote. Yet this is a right more for one to vote to improve the society at large rather that a vote to promote your own interests. Similarly politicians are voted into the Government system to help to shape the society, not to perform for the sake of getting votes again for the next election.

Such immaturity has thus slowed down government's decisions and progress and dare I say slowed progress for many in the private arena too. No, do not get me wrong, I am all for democracy, for transparency, for getting proper and adequate public opinions. Yet I strongly believe that leaders are there to lead – through good communication, open mindedness and through making difficult decisions, rather then to stir up controversy for the sake of controversy.

Mr President, Ladies and Gentlemen, in the last 20 minutes, I have outlined some of the imminent problems that face the profession and the health care services and the society at large. These are pressing problems that need to be addressed and solved. This is perhaps the reason why the late Gerald Choa moved from being a pure physician to be a policy maker and then an educator.

I would like to end by quoting to you a thought from Richard Gordon, the author of the "Doctor in the House" series, when in a serious mood he wrote:

"The potential of medicine is infinite, the demands on medicine must be unrestrained, but the resource for medicine is limited. Unless a fearless politician strikes a non-political compromise between all three, the history of medicine may head for a disaster" Gerald Choa, I have no doubt, would have agreed.

18th Annual General Meeting and 7th Congregation

(5 November 2005)

rofessor KN Lai delivered the annual President's report which highlighted the achievements of the College's various subcommittees in the past year. The Treasurer, Dr TF Tse reported on the healthy financial status of the College.

The Honorary Fellowships were conferred upon Dr Lit-Chung Liu, Vincent and Professor Lap-Chee Tsui. Dr Liu was recognised for his exceptional contributions to the research and care of motor neuron disease patients with the establishment of the Liu Po Shan/ Dr Vincent

Liu Endowment Fund in 1998. Professor Tsui was honoured for his internationally outstanding contributions in genetics and genetic biology. His numerous achievements include the identification of the CFTR gene and the major mutations that cause cystic fibrosis in 1989. He is a key contributor in the International HapMap Project which will describe common patterns of the human DNA sequence variants.

The ceremony proceeded with conferral of Fellowships and Memberships to over a hundred doctors.

During the College Dinner, we were honoured to have Mr Andrew Sheng, Chairman of the Securities and Futures Commission to deliver the AJS McFadzean Oration, titled "Medicine and Capital Markets".



Dr Lit-Chung Liu, Vincent presented with the Honorary Fellowship by Dr Loretta Yam, Vice-President, HKCP. Dr Liu is on a respirator and his forehead is supported by a helper.



Professor Lap-Chee Tsui received the Honorary Fellowship from Professor KN Lai, President, HKCP. (*Professor Lai is seated due to* a recent leg injury)

The HKCP Council

2005-2006

President: Professor Lai Kar Neng

Vice-President: Professor Lam Wah Kit Dr Yam Yin Chun, Loretta

Professor Li Kam Tao, Philip Hon Secretary:

Hon Treasurer: Dr Tse Tak Fu

Council Members: Professor Chan Tak Cheung, Anthony

> Dr Kng Poey Lyn, Carolyn Professor Lam Shiu um Professor Lau Chak Sing Dr Li Chung Ki, Patrick Dr Li Chun Sang

Professor Liang Hin Suen, Raymond

Dr Ng Mar Tai, Matthew Professor Sung Jao Yiu, Joseph Dr Szeto Ming Leung Dr Tong Kwok Lung, Matthew Dr Wong Chun Por

Professor Wong Ka Sing, Lawrence

Co-opted Council Member: Dr Leung Man Fuk, Edward **Founding President:** Professor Sir David Todd

Past President: Professor Yu Yue Hong, Richard

Chairmen of **College Committees**

Examination Committee

Professor Liang Hin Suen, Raymond

Education and Accreditation Committee

Dr Yam Yin Chun, Loretta

National and International Liaison Committee

Professor Lam Wah Kit

Professional and General Affairs

Dr Ng Mar Tai, Matthew

Scientific Committee

Professor Lau Chak Sing

Membership Committee

Dr Li Chung Ki, Patrick

Administration and Finance Committee

Dr Tse Tak Fu

Working Group in Traditional Chinese Medicine

Dr Tse Tak Fu

Research Committee

Professor Wong Ka Sing, Lawrence

Synapse

Dr Ng Mar Tai, Matthew

Annual Scientific Meeting (5-6 November 2005)

he theme of this year's meeting was "Moving Points in Medicine". It featured symposiums on "Unsuspected Medical Syndromes" which aimed to promote awareness of uncommon but potentially treatable conditions. The meeting at the Hong Kong Academy of Medicine Jockey Club Building was attended by over 500 delegates. As in previous years, highlights included presentations of outstanding local scientific papers at the Sir David Todd Lecture, the Distinguished Research Paper Award for Young Investigators and the Best Thesis Awards. Dr Raymond Cheung was presented with the Sir David Todd Medal with his lecture titled "Functional CT and MRI studies in Stroke". The abstracts of this lecture, together with the abstracts who won the best thesis awards can be found in the scientific section of this edition of Synapse. The references for this year's selected distinguished research paper award for young investigators are listed below. Dr CH Leong delivered the Fourth Gerald Choa Memorial Lecture titled "Beyond the Practise of Medicine".

Distinguished Research Paper Award for Young Investigators 2005

The following doctors together with their research teams received the awards at the College Annual Dinner.

(1) Dr Chee-kin HUI

A long-term follow-up study on hepatitis B surface antigen positive patients undergoing allogeneic hematopoietic stem cell transplantation.

Blood. 106(2):464-9, 2005 Jul 15.

(2) Dr Lawrence CT HUNG

Long-term outcome of H. pylori-negative idiopathic bleeding ulcers: a prospective cohort study.

Gastroenterology. 128(7):1845-50, 2005 Jun.

(3) Dr Lai-Shan TAM

Higher prevalence of squamous intraepithelial lesion in systemic lupus erythematosus – association with human papillomavirus infection
Arthritis & Rheumatism. 50(11):3619-25, 2004 Nov.

(4) Dr Angela Yee Moon WANG

Resting energy expenditure and subsequent mortality risk in peritoneal dialysis patients.

Journal of the American Society of Nephrology. 15(12): 3134-43, 2004 Dec.

Reunion at the College Dinner 2005



Dr Yam with Fellows from the Pamela Youde Nethersole Eastern Hospital



Prof TK Chan with fellows at the College Dinner



Dr MF Leung, Council Member, is photographed here with Fellows from the United Christian Hospital at the College Dinner



Our Editor in Chief, Dr Matthew Ng with Ms Helen Tsang and Mr Jason Cheung, winners of the Medical Student Essay Award

Specialty Update

Rheumatology

Maida Wong

Division of Rheumatology University of California, Los Angeles, USA

CS Lau

Division of Rheumatology & Clinical Immunology
Department of Medicine
The University of Hong Kong

Management of Systemic Lupus Erythematosus: A brief update on recent advances

Systemic lupus erythematosus (SLE) has remained as one of the most baffling autoimmune rheumatic diseases since it was described in the 19th century. It is a multisystemic, chronic condition that affects individuals with life-threatening irreversible end organ damage and debilitating clinical features. The course of SLE varies from periods of quiescence to ones of exacerbation that may involve any organ systems in almost any combinations. In particular, SLE typically attacks young women at their childbearing years, which makes the therapeutic goals and pharmacological management even more challenging.

In this article, we will discuss the approaches to the management of SLE from the perspective of a general physician and the patient. Following this, we will discuss the various pharmacological approaches and recent studies in biologic therapy.

Goal of management

The goal of management of SLE patients is to prevent disease flares, and hence delay and prevent morbidity and mortality. More than half of the SLE patients have permanent organ system damage, especially in non-Caucasian population. Deaths early in the course of disease are usually due to infections and active disease, and those that occur later in the disease course are often due to atherosclerotic vascular complication.

Timely and aggressive therapy is therefore crucial. The control of disease activity has to be rapid and persistent, while minimising the side effects from the medications. Co-existing risk factors and the sequelae of disease or the medications should also be controlled.

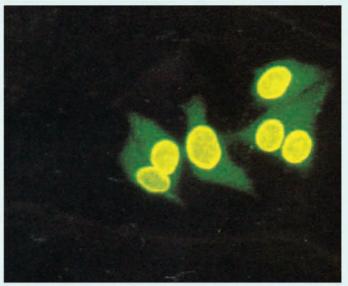
Role of general practitioners

The prevalence of SLE is about 1:1,000. General practitioners and physicians will therefore almost certainly come across patients

with the disease. However, they may not be familiar with the complex disease course, and would prefer to co-manage these patients with other specialists.

General physicians wear several hats in caring for SLE patients. First, they are the first radar to detect possible early diagnosis of SLE in their patients. For those patients with a confirmed diagnosis, they can monitor and manage them if the disease is mild and stable. This includes those with no life-threatening disease, stable organ functions, with no drug toxicity or side effects from the SLE treatment, and in no specific circumstances, such as antiphospholipid syndrome, surgery, and pregnancy. However, if any one of the above occurs, or when the diagnosis of SLE is unclear, the patient should be referred to a rheumatologist for further management, and if necessary, collaborate with other specialists in patient care.

Patients will need lifelong monitoring to detect flares early in order to initiate prompt therapy. This will require frequent follow-up visits with laboratory assessments, including complete blood count, creatinine level and urinalysis. When patients are on more than 10 mg prednisolone per day, or when they are on immunosuppressants, influenza and pneumococcal vaccines are



Positive immunofluorence test for anti-nuclear antibodies

safe, but live vaccines are not advised. Some patients may need more assistance in coping with the disease beyond pharmacological therapy, such as psychological, vocational and social counseling, occupational and physical therapy. Physicians should make referrals based on each patient's needs.

The patient's role

The most effective management to prevent morbidity and mortality is diligent clinical follow-up and medical adherence. The key to this is patient education. Patients must learn to cope with and monitor their own disease, and to assist their physicians in identifying coincidental unrelated symptoms, from signs and symptoms of a flare.

In order to minimize exacerbation of a flare, it is prudent that patients can recognise triggers, and are educated in various precautions. This includes avoiding prolonged sunlight or fluorescent light exposure, and using sun block with SPF 25-50. Smoking cessation is strongly advised due to their increased risk of atherosclerotic diseases. Stress is also a known cause of SLE flares, and patients should therefore be aware of how it affects them in their disease course, and make adjustments or seek help if needed. They should also be aware of the side effects of the medications they are taking for SLE and those that may induce lupus flares. Dietary modification may also be necessary. Animal studies have shown dietary fat restriction and zinc reduction are beneficial.¹ Fish oil supplementation with a low saturated fat diet has also been shown to be helpful.²

Pregnancy and management of SLE

Pregnancy poses risks in female SLE patients in many ways. Overall, about 25% of them develop flare during pregnancy and/or postpartum. However, recent studies have shown that the rate of disease flare during pregnancy is not significantly higher than if the patient is in a non-pregnant state as long as the disease is in remission with minimal immunosuppressive drug use prior to pregnancy. 20-30% develops gestational hypertension, which



Characteristic butterfly rash of SLE

may subsequently lead to preeclampsia, especially those with pre-existing hypertension and renal insufficiency. 20-30% experience fetal loss as miscarriage or fetal death secondary to placental insufficiency.³ Therefore, many of these patients are referred to obstetricians who specialize in high-risk pregnancies. Adequate disease control prior and during pregnancy, detailed planning and counseling, and regular follow up by rheumatologists and obstetricians are essential for a successful pregnancy outcome.

Effective contraceptive devices should be provided to those with no intention of conceiving. High dose oestrogen contraceptive pills should be avoided. Those who are planning to have children should be counseled on the risk and complications of pregnancy, and be advised to avoid conception during or within months of a lupus flare. Once pregnant, they should be monitored closely for lupus flares. They should be aware of signs and symptoms indicative of severe preeclampsia such as persistent headache, visual changes, right upper quadrant/epigastric pain or flank pain. Frequent blood pressure monitoring, urine protein assessment, and fetal surveillance testing are advised. If gestational hypertension is severe, delivery is the only safe option for the mother.

Teratogenic agents, such as angiotensin converting enzyme inhibitors, cyclophosphamide, methotrexate and chlorambucil, should be avoided. The choice of pharmacological treatment of flares occur during pregnancy is controversial. Low dose prednisolone, azathioprine, and probably cyclosporine may be considered if deemed necessary.⁴

All pregnant patients, especially those with positive anticardiolipin antibodies, should be considered for low-dose aspirin to lower the risk of fetal loss, preeclampsia and intrauterine growth retardation. For patients with a history of fetal loss, the use of subcutaneous heparin with or without low-dose aspirin will be more appropriate. Patients should be warned that high dose aspirin and non-steroidal anti-inflammatory drugs (NSAIDs) could be harmful in the later stages of pregnancy. Patients with anti-Ro antibody should be monitored closely for signs of fetal congenital heart block.⁵

Pharmacological Management

Induction therapy

The conventional medications that are commonly used in treating SLE include NSAIDs, antimalarials, corticosteroids, and cytotoxic agents, but *corticosteroids* are the mainstay of therapy in controlling disease flares in acute settings. Low dose oral steroids are often used when NSAIDs and antimalarials have failed to control symptoms sufficiently. Intravenous pulse methylprednisolone has been widely used for acute flares, but it is not effective in inducing and sustaining remission of SLE flares

when used alone, especially when there is major organ involvement.

Combination of steroids and cytotoxic agents, in particular, pulse intravenous *cyclophosphamide*, has been the standard induction therapy in severe flares for broad-spectrum immunoablation though newer agents have become available recently. Cyclophosphamide is an alkylating agent that is considered the most effective drug in treating renal and neuropsychiatric lupus. It has been shown to be superior to glucocorticoids alone in terms of reduction of death and end stage renal disease. However, recent studies have shown that cyclophosphamide has no impact on overall mortality, and high doses do not lower the incidence of renal flares.⁶ Furthermore, its adverse effect of premature ovarian failure is noted in up to 40% of all female patients,⁷ especially those at an older age, with lower predose neutrophil count and greater cumulative dose of cyclophosphamide.

Other cytotoxic drugs used as induction agents include cyclosporine, azathioprine, tacrolimus and methotrexate, but they are either less effective, or are associated with significant side effects that limit their use.

Mycophenolate mofetil (MMF) has become a promising new addition to the treatment of SLE with proliferative nephritis.⁸ As an induction agent, it acts by inhibiting purine synthesis. It is used in conjunction with corticosteroids and is as effective as cyclophosphamide, but less toxic.⁹ It is also an effective maintenance drug.¹⁰

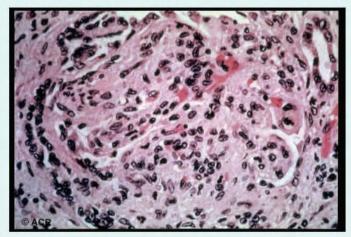
Maintenance Drugs

These are used during early flares or to facilitate steroid tapering. Due to their slow onset of action, they are often used concurrently with steroids or alkylating agents during induction therapy. They include antimalarial agents, *methotrexate* and *azathioprine*.

Hydroxychloroquine and Chloroquine are antimalarial agents that have been used for treating mucocutaneous, articular, and mild systemic manifestations. Their cholesterol-lowering and antiplatelet effects also reduce the risk of atherosclerosis and thrombosis. Retinopathy is a rare but known side effect, and therefore patients should receive baseline and annual opthalmological assessment when placed on the medication.

Methotrexate acts as a folate antagonist, and is effective in treating cutaneous and musculoskeletal manifestations. Its side effect of bone marrow suppression requires concurrent use of folate supplement, and patients require frequent monitoring for signs of hepatotoxicity, mucositis, and pulmonary fibrosis while on the medication.

Azathioprine inhibits purine synthesis, and is often used during early flares or to facilitate steroid tapering. The dose is adjusted



Class IV diffuse proliferative glomerulonephritis

based on neutrophil count, aiming at $2x10^9/L$. WBC may start to fall as early as one week after commencement of the drug, and pancytopenia is a known side effect. Hence, regular blood monitoring is essential with the use of this drug, as with other immunosuppressive and cytotoxic agents.

Thalidomide has been used mostly in discoid lupus that is unresponsive to antimalarial and methotrexate. The side effect of neuropathy may be irreversible, and relapse is frequent with medication withdrawal.

Biologic agents

Current treatment is based on nonspecific, broad based immunosuppression, which brings up serious side effects that sometimes seem to outweigh its benefits. Recent studies have therefore aimed towards developing biologic agents that target specific cells or cytokines, and hence alter the patho-physiology in SLE.

LIP394 is a B cell tolerogen that is designed to down-regulate production of anti-dsDNA antibodies, and induce anergy rather than activation. A study has demonstrated reduction of anti-DNA antibody levels by 40% in patients who had high-affinity anti-dsDNA antibodies, and improvement in renal disease. However, a recent phase III trial was inconclusive in its efficacy.^{11,12}

Drugs that are licensed for treatment of rheumatoid arthritis are also put to test for their efficacy in SLE treatment. These medications affect activation of T and B cells, and have been used in severe SLE patients who do not respond to conventional immunosuppressive therapy. *Rituximab* is a chimeric monoclonal antibody that directs against the pan-B cell antigen CD20 and inhibits dsDNA antibody production. It has been shown to prolong remissions in patients, especially those with proliferative lupus nephritis.^{13,14} *Leflunomide* is another drug tried based on its ability to inhibit pyrimidine synthesis.

Ongoing animal studies

A monoclonal antibody which blocks CD40L has been promising in murine models, but has not brought the anticipated results in humans, especially with thrombotic events reported in treated patients.¹⁵ Another study on a murine *Anti-IL-10 antibody* has shown the use of this agent is associated with decreased disease activity index, especially in skin and joint manifestations, and drop in markers of T cell and endothelial cell activation. However, human-derived monoclonal antibodies are needed for further study. Suppressive oligodeoxynucleotides, CTLA4Ig and C-reactive protein have been shown to delay onset and progression of glomeruloneprhitis in mouse models.^{16,17,18}

"New Age" therapies

Numerous other therapeutic strategies have been attempted in patients who have intractable SLE that failed to respond to aggressive immunosuppressive therapies, or when side effects of conventional therapies prohibit their use. They may be given along with cyclophosphamide or steroids if patients can tolerate. Few have undergone the rigor of randomized controlled trials yet, and long-term results are still unknown. Hence, there are no recommendations on their use in SLE treatment.

Intravenous immunoglobulin (IVIG) has been described in many reports for its use in severe SLE complicated by sepsis. Autologous nonmyeloablative stem cell transplantation has been successful in some trials by maximally suppressing the immune system, and then halts haematopoietic failure by infusing either autologous or allogenic haematopoietic progenitor cells (CD34+) to minimize toxicity. 19,20

Some other trials are less encouraging. Results from studies of nucleoside analogs (Fludarabine, cladribine) were equivocal. Hormonal agents such as DHEA have shown no significant benefits in clinical trials. Bromocriptine, a prolactin antagonist, seems to be effective in some patients with hyperprolactineamia with suppression of cytokine effects; however, there is little effect on the disease activity.

Conclusion

Biologic agents may become a new breakthrough in the pharmacological management in SLE, either to enhance or replace conventional immunosuppressive therapies. Investigations are underway to determine their efficacy. Whether any one of these drugs will succeed, it is still open to the jury. However, without the teamwork of the primary care physician, the specialists and the ancillary services, management will not be effective. More importantly, without the cooperation of the patient, any treatment will be doomed to fail. Hopefully new technologies and discoveries, along with physician and patient awareness, will bring us to a new era of SLE management, and lead us to understand more about this mysterious disease, and one day, to conquer it.

References:

- Salmon JE, Roman MJ. Accelerated atherosclerosis in systemic lupus erythematosus: implications for patient management. Curr Opin Rheumatol 2001; 10:375-7.
- 2. Walton AJ, Snaith ML, Locniskar M et al. Dietary fish and the severity of symptoms in patients with systemic lupus erythematosus. *Ann Rheum Dis* 1991; 50:463-6.
- 3. Petri M, Allbritton J. Fetal outcome of lupus pregnancy: a retrospective case-control study of the Hopkin's lupus cohort. *J Rheumatol* 1993; 20:650-7.
- 4. Mok CC, Wong RW. Pregnancy in systemic lupus erythematosus. Postgrad Med J 2001; 77:157-65.
- 5. Branch DW. Pregnancy in patients with rheumatic diseases: obstetric management and monitoring. *Lupus* 2004;13:696-8.
- 6. Houssiau FA, Vasconcelos C, D'Cruz D et al. Immunosuppressive therapy in lupus nephritis: The Euro-Lupus Nephritis Trial, a randomized trial of low-dose versus high-dose intravenous cyclophosphamide. Arthritis & Rheumatism 2002; 46(8):2121-31.
- 7. D'Cruz D, Cuadrado MJ, Mujic F, Tungekar MF, Taub N, Lloyd M, Khamashta MA, Hughes GRV. Immunosuppressive therapy in lupus nephritis. *Clin Exp Rheumatol* 1997; 15:275-82.
- 8. Chan TM, Li FK, Tang CS *et al.* Efficacy of mycophenolate mofetil in patients with diffuse lips nephritis. Hong Kong-Guangzhou Nephrology study group. *N Eng J Med* 2000; 343:1156-62.
- Contreras G, Pardo V, Leclercq B et al. Sequential Therapies for proliferative lupus nephritis. N England J Med 2004; 350:971-80.
- Vasoo S. First international meeting on mycophenolate mofetil: an advance in the treatment of lupus. 27 April 2004, St Thomas' Hospital, London, UK. Lupus 2004; 13:543-5.
- 11. Furie RA, Cash JM, Cronin ME *et al.* Treatment of systemic lupus erythematosus with LJP 394. *J Rheumatol* 2001; 28:257-65.
- 12. Alarcon-Segovia D, Tumlin JA, Furie RA *et al.* LJP 394 for the prevention of renal flare in patients with systemic lupus erythematosus: results from a randomized, double-blinded, placebo-controlled study. *Arthritis Rheum* 2003; 48:442-54.
- 13. Leandro MJ, Edwards JC, Cambridge G, Ehrenstein MR, Isenber DA. An open study of B lymphocyte depletion in systemic lupus erythematosus. *Arthritis Rheum* 2002; 46:2673-7.
- 14. Sfikakis PP, Boletis JN, Lionaki S et al. Remission of Proliferative Lupus Nephritis Following B cell Depletion Therapy is Preceded by Down-regulation of the T cell Costimulatory Molecule CD40 Ligand Arthritis and Rheumatism 2005:52:501-503.white mice. Response correlates with the absence of an anti-antibody response. J Immunol 1996; 157:3159-64.
- Early GS, Zhao W, Burns CM. Anti-CD40 ligand Antibody treatment prevents the development of lupus-like nephritis in a subset of New Zealand black x New Zealand white mice. Response correlates with the absence of an anti-body response. *J Immunol* 1996; 157:3159-64.
- Dong L, Ito S, Ishii KJ, Klinman DM. Suppressive oligodeoxynucleotides delay the onset of Glomerulonephritis and Prolong Survival in Lupus-Prone NZB x NZW Mice. Arth Rheum 2005; 52:651-8
- 17. Finck BK, Linsley PS, Wofsy D. Treatment of murine lupus with CTLA4Iq. *Science* 1994; 18:95-102.
- Rodriguez W, Mold C, Kataranovski M, Hutt J, Marnell LL, Du Clos TW. Reversal of ongoing proteinuria in autoimmune mice treatment with C-reactive protein. *Arthritis Rheum* 2005; 52:642-50.
- Khorshid L, Hosing C, Bibawi S et al. Nonmyeloablative Stem Cell Transplantation in a Patient with Advanced Systemic Sclerosis and Systemic Lupus Erythematosus. J Rheum 2004;31:2513-6.
- Talaulikar D, Tymms KE, Prossor I, Smith R. Autologous peripheral blood stem cell transplantation with in vivo T-cell depletion for life threatening refractory systemic lupus erythematosus. *Lupus* 2005;14:159-63.

The Avian Flu Pandemic - looking at all the facts.

What really happened in 1918, 1957 and 1968

WH Seto

Department of Microbiology Queen Mary Hospital

s responsible members of the medical community, we certainly must prepare ourselves for the flu pandemic. In this regard, it is prudent to note the advice of a recent "Time" magazine1 article that "panic is the enemy of good preparation". Pertinently, the article also pointed to the irrational hoarding of Tamiflu as a symptom of this imbalance. The fact that this is also observed in our community is an indication that it is time to take stock.

Indeed as pointed out in the article, "preparing for a pandemic is challenging because it is difficult to strike a balance between acting and over-reacting". The safest bid to avoid over-reaction is obviously to carefully examine all the facts and base our preparation on the "facts" and not "fears".

The last three pandemic in 1918 (Spanish Flu), 1957 (Asian Flu) and 1968 (Hong Kong Flu) had also affected Hong Kong (HK). Hong Kong being a British Colony then, had maintained impeccable records. It is important therefore to examine these records and learn from history. This is a key difference from SARS which is a new disease and history is not available to be of help.

The 1918 Spanish Flu

We have two dependable sources for this time period. Fortuitously we have a special report to the HK Legislative Council from Dr Olitsky of the renowned US Rockefeller Institute. He was specially invited by the HK Colonial Government to investigate a meningococcal outbreak and in the midst of his report (page 68)², he noted that there were "a great number of cases of influenza and sore throat" in the year. He also stressed that "The epidemic was not severe...but the distribution of these ailments was quite general".²

The second source was from the HK Government Annual Administrative Report. Categorically the report mentioned the influenza outbreak as one of the important events of the year, stating that "There were 485 admissions under the heading of influenza and 7 deaths occurred" (HK Population 1918: 561,500). The report also concluded that, "from a comparative study of the

little doubt that a similar disease was present in each case but that which took place in Hong Kong was of **greatly lessened** virulence".³

The key trends can be summarized. There were widespread ailments but it was not severe and mortality was very low.

The 1957 Asian Flu

If we track the governmental records, it is obvious that data collection had progressed through the years and for this time period we have both the HK Government Annual Report and the Department Report from the Department of Health (DOH). In the former it clearly stated that "The Colony experienced a large scale outbreak of a type of influenza, popularly christened 'Asian Flu' in the late spring". It also reported that "about 10% of the population suffered from the condition; corresponds to approximately 270,000...but schools were not closed. Clinical course of the disease was milda total of 40 deaths was ascribed to influenza, over half in persons over 60 years."

The Department Report was very brief, stating that "The outbreak of Asian influenza occurred during the months of April, May and June" 5 but offering no details. It then proceeded immediately to state that "The major health problem in the Colony is undoubtedly Tuberculosis" 5

The trend again seems to be repeated. The disease was widespread but mortality was again extremely low.

The 1968 Hona Kona Flu

In 1968, besides the governmental reports, the outbreak was also reported in a reference journal, showing the progress of our scientific community. There was sufficient interest and expertise to ensure the record of the outbreak in the academic world. Chang WK reported that the "outbreak lasted for about six weeks" but "There were no observable excess deaths during the epidemic". Furthermore "About 15% of the population was affected, but mortality rate was low and the clinical symptoms were mild.".

This was confirmed by the HK Annual Report which stated that "It was estimated that some 10% of the Colony's population were affected, and 27 persons died". A similar statement of fact was found in the Department Report of the DOH which reported "As far as could be determined some 10% of the population was affected but the case fatality ratio was very low indeed."

Some Obvious Trends

Undeniably, Hong Kong like the rest of the world experienced significant influenza outbreaks during these three time periods but the trends were consistently repeated. The disease was widespread but the mortality was low. Could it be that the diagnoses of influenza were missed as our laboratory diagnostic capabilities was then rather inexact? To answer this question, the annual death rates for the three time periods and also the death rates from all respiratory diseases are shown in **Table 1**. As shown, there is no significant rise in these death rates when they are compared with the death rates of the 5 years before and 5 years after the three outbreak years. The record of death rates are rather clean and precise; and surely if we had devastating outbreaks with high mortality, a picture often painted of such pandemics, it should show itself in a significant rise of these mortality rates.

Table 1: Deaths and Death Rates Reported in 1918, 1957, and 1968 in Hong Kong

	1918 – Spanish Flu	1957 – Asian Flu	1968 – Hong Kong Flu
Population of HK	561500	2,583,000	3,802,700
Annual Death Rate (ADR) per 1000	24.4*	7.5*	5.1*
ADR Range (5yrs before to 5 yrs after outbreak year)	<u>1913 - 1923:</u> 18.6 – 26	<u>1952 – 1962:</u> 6.1 -8.6	<u>1963 – 1973</u> 4.8 – 5.8
All Respiratory Death Rate (ARDR) per 1000	5.31*	1.61*	0.64*
ARDR Range (5yrs before to 5 yrs after outbreak year)	<u>1913 - 1923:</u> 4.0 – 7.2	<u>1952 – 1962:</u> 0.9 – 2.2	<u>1963 – 1973</u> 0.5 – 1.5

There is one more arbiter for these facts. Many of us were in fact first hand witnesses of the 1957 and 1968 outbreaks. I for one remember that the illnesses were indeed rather general but there were negligible reports of mortality even in the press. A similar analysis is conducted from records in Singapore and comparable trends are also noted, but perhaps this ought to be another report.

It is clear that history will not precisely repeat itself but the trends often remain similar. An important feature was that about 10% of the populace was affected, although with a non-fatal ailment. However, if this 10-15% has been unwittingly primed by the pandemic frenzy to believe that they have contacted a fatal "bird flu", there will be inevitable pandemonium. Although it is possible that mortality in the next pandemic may be more severe then previously noted, it is hard to imagine that we will encounter 500,000 deaths as stated in some reports. Such devastating statistics and depiction can only instill panic, and as concluded in Time Magazine, "Panic is a bad stimulus for action".\footnote{1} The exhortation is "a need to rise above panic and politics"\footnote{1} and to do this, we must certainly without fail, look at all the facts.

References

- 1. Time Magazine: Between Panic and Apathy, pp19 Nov 14 2005
- 2. PK Oblitsky: Report on the Investigations of the Outbreak of Epidemic Meningitis, Report to the Legislative Council of Hong Kong, 1918, pp68.
- 3. Hong Kong Government Annual Administrative Report, 1918 M30.
- 4. The Hong Kong Annual Report 1957, Public Health pp147
- 5. Hong Kong Annual Department Reports, Department of Health, 1957 pp34
- 6. WK Chang: National Influenza Experience in Hong Kong, 1968, Bull WHO, 1969;41:349-351.
- 7. The Hong Kong Annual Report 1968, Health pp112
- 8. Hong Kong Annual Department Reports, Department of Health, 1968 pp10





Sir David Todd Lecture Functional CT and MRI Studies in Stroke

Raymond Tak Fai Cheung =

Department of Medicine, The University of Hong Kong

Professor Richard Yu presents the prestigious medal to Professor Cheung

Stroke and neuroimaging

Stroke is the second leading cause of death in China and the third leading cause of death in Hong Kong. Stroke is also a leading source of functional disability. Availability of computed tomography (CT) and magnetic resonance imaging (MRI) allows an accurate diagnosis without a postmortem examination. In addition to structural information, neuroimaging can provide information on tissue viability, fiber tract integrity, perfusion, and functional organization. See

Imaging of cerebral perfusion

Cerebral blood flow (CBF) directly defines the viability of brain parenchyma. Multiple thresholds of CBF have been detected for progressive failure of protein synthesis, electrical activity, and metabolic functions of neurons. The central volume principle stipulates that CBF is the ratio of the blood volume within all blood vessels in a given volume of tissue (cerebral blood volume [CBV]) to the mean transit time (MTT) of the agent from the arterial input to the venous drainage within the volume being evaluated (CBF=CBV/MTT). Autoregulation of cerebral perfusion allows for adjustment of regional CBF according to local neuronal activity and maintenance of regional CBF despite changes in systemic or regional arterial pressure.^{8,10}

CT perfusion imaging

Availability of helical and spiral multi-slice CT technology has permitted CT perfusion imaging methods. These include a slow-infusion/whole-brain non-quantitative technique, a fast-injection (10 to 20 ml/s) first-pass bolus-tracking quantitative method, and a slow-injection (3 to 4 ml/s) first-pass bolus tracking quantitative technique.^{8,10,11} We used the slow injection quantitative method to measure CBF, CBV and MTT from the brain regions supplied by the major cerebral arteries on both sides and from the ischemic zone in patients with acute or subacute middle cerebral artery (MCA) ischemic stroke. In patients with acute ischemia within 6 h of

onset, the CBF (in mL/100 g/min), CBV (in mL/100 g) and MTT (in s) over the acute ischemic zone were 13 ± 5 (p<0.0001), 1.4 ± 0.5 (p<0.0005) and 8.8 ± 3.9 (p<0.005), respectively, and those of the mirror sites of the non-ischemic side were 60 ± 13 , 2.7 ± 0.8 and 4.0 ± 0.6 , respectively. In patients with subacute ischemia between 0.5 and 30 days of onset, the perfusion parameters of the infarct gradually 'normalized' over time, probably representing luxury perfusion. We also measured perfusion parameters in patients with chronic MCA territory ischemia due to severe stenosis or occlusion of the internal carotid artery (ICA). These patients had 'chronic ischemia' over the MCA territories with a mild (20%) reduction in CBF, a compensated CBV, and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) and a moderate (60%) prolongation in MTT. In the carotid artery (ICA) are carotid artery (ICA).

MRI and functional recovery after stroke

Under physiological states, increased regional brain activity is matched by enhanced regional CBF. Non-invasive mapping of brain activation can be achieved by measuring the minute increase in regional CBF with increased regional venous oxygen content with blood-oxygen-level-dependent (BOLD) signal MRI. 15,16 Available functional neuroimaging studies on stroke patients have indicated two plausible and complementary mechanisms for recovery in lost functions. First, functional reorganization of spared peri-lesional cortices over the same hemisphere may take up some of the lost functions. Second, a compensatory shift of neurologic functions to the homologous sites over the other hemisphere may also be responsible for functional recovery.

Use of functional MRI to visualize brain activations during acupuncture

Despite a lack of compelling evidence, acupuncture has been tried by many stroke patients to promote functional recovery. Brain activations were mapped by functional MRI upon physiological tasks with or without stimulation of deficit-related acupoints in healthy volunteers, stroke patients with persistent neurologic deficits, and age-matched healthy control subjects. We tested several acupoints related to motor, language, visual, or sensory dysfunctions. Standard parametric mapping 99 was used in generating the functional MRI data. Among healthy volunteers and age-matched controls, our results were similar to those obtained by other research groups. Briefly, stimulation of certain acupoints per se can activate specific brain regions similar in pattern when compared to physiological tasks. 17-19 Among stroke patients with persistent neurologic deficits, significant brain activations were seen during electrical stimulation of acupoints implicated in motor, language or sensory but not visual dysfunctions. In general, activations were seen in the peri-lesional and homologous sites of stroke patients. 20-23

Clinical implications

The perfusion abnormalities may guide the acute stroke management of acute ischemic stroke and influence our decision on revascularization procedures, especially in asymptomatic patients. Cortical functional reorganization is an important mechanism in functional recovery after stroke. Benefit of acupuncture in stroke patients may be derived from its ability in modulating the activities of the cerebral cortex. Functional MRI may be useful in identifying responders to a course of acupuncture over specific acupoints. Randomized controlled clinical trials are being conducted to test this hypothesis.

Reference

- Cheung RT. Cerebrovascular disease advances in management. H K Med J 2001;7:58-66.
- Cheung RT, Mak W, Chan KH. Circadian variation of stroke onset among Hong Kong Chinese: a hospital-based study. Cerebrovasc Dis 2001;12:1-6.
- 3. Cheung RT. Sexual functioning in Chinese stroke patients with mild or no disability. Cerebrovasc Dis 2002;14:122-8.
- 4. Cheung RT, Zou LY. Use of the original, modified or new Intracerebral Hemorrhage Score to predict mortality and morbidity after intracerebral hemorrhage. Stroke 2003;34:1717-22.
- Cheung RT, Eliasziw M, Meldrum HE, Fox AJ, Barnett HJ, North American Symptomatic Carotid Endarterectomy Trial (NASCET) Group. Risk, types, and severity of intracranial hemorrhage in

- patients with symptomatic carotid artery stenosis. Stroke 2003;34:1847-51.
- Ng PW, Huang CY, Cheung RT, Wong KS, Wong CK, Lam JM. Consensus statements on ischaemic stroke care. H K Med J 2004;10:124-9.
- 7. Cheung RT. Stroke prevention in clinical practice for primary care physicians. H K Pract 2004;26:81-92.
- 8. Cheung RT, Cheng PW. CT perfusion study in acute stroke management. J H K Coll Radiol 2000;3(Supp):170-4.
- 9. Khong PL, Zhou LJ, Ooi GC, Chung BH, Cheung RT, Wong VC. The evaluation of Wallerian degeneration in chronic paediatric middle cerebral artery infarction using diffusion-tensor MR imaging. Cerebrovasc Dis 2004;18:240-7.
- Cheung RT, Cheng PW, Lui WM, Leung GK, Lee TY. Visualization of ischaemic penumbra using a computed tomography perfusion method. Cerebrovasc Dis 2003;15:182-7.
- 11. Lee R, Cheung RT, Hung KN, Au-Yeung KM, Leong LL, Chan FL, Lee TY. Use of CT perfusion to differentiate between brain tumor and cerebral infarction. Cerebrovasc Dis 2004;18:77-83.
- 12. Cheung RT, Au-Yeung KM, Lee TY. Cerebral perfusion CT abnormalities in acute MCA territory ischemic infarction. (submitted).
- 13. Cheung RT, Au-Yeung KM, Lee TY. A dynamic computed tomographic demonstration of luxury perfusion in subacute or recent middle cerebral artery territory ischemic infarction. (submitted).
- 14. Cheung RT, Au-Yeung KM, Lee TY. Cerebral perfusion CT abnormalities in patients with unilateral severe stenosis or occlusion of the internal carotid artery. (in preparation)
- 15. Cheung RT, Lo GG. Functional imaging in cerebrovascular disease. Symposium II: Functional Imaging, Stents & Stroke Center. Program Book, Hong Kong Stroke Symposium & Workshop 2004, 4th & 5th December 2004, Hong Kong Sanatorium & Hospital:27-28.
- Li G, Cheung RT, Gao JH, Lee TM, Tan LH, Fox PT, Jack CR Jr, Yang ES. Cognitive processing in Chinese literate and illiterate subjects: an fMRI study. Hum Brain Mapp 2005;25:1-9. (in press)
- 17. Li G, Liu HL, Cheung RT, Hung YC, Wong KK, Shen GG, Ma QY, Yang ES. A functional MRI study comparing brain activation between word generation and electrical stimulation of language-implicated acupoints. Hum Brain Mapp 2003;18:233-8.
- 18. Li G, Cheung RT, Ma QY, Yang ES. Visual cortical activations on fMRI upon stimulation of the vision-implicated acupoints. NeuroReport 2003;14:669-73.
- 19. Li G, Huang L, Cheung RT, Liu SR, Ma QY, Yang ES. Cortical activations upon stimulation of the sensorimotor-implicated acupoints. Magn Reson Imag 2004;22:639-44.
- 20. Li G, Cheung RT, Au Yeung KM, Yang ES. Brain activations on fMRI in stroke patients during acupuncture or language task. (submitted).
- 21. Li G, Cheung RT, Au Yeung KM, Yang ES. fMRI study of motor-related acupoints in stable stroke patients with motor deficits. (submitted).
- 22. Li G, Cheung RT, Au Yeung KM, Yang ES. fMRI study of sensation-related acupoints in stable stroke patients with sensory deficits. (in preparation).
- 23. Li G, Cheung RT, Au Yeung KM, Yang ES. fMRI study of vision-related acupoints in stable stroke patients with visual deficits. (in preparation).

Best Thesis Award (Gold Award Winner)

Potential role of Lmo4 in the pathogenesis of Lmo2-induced T-cell acute lymphoblastic leukaemia



Dr Tse receives the Gold Award from Prof WK Lam

hromosomal translocations are recurring features of human acute leukaemias and majority involve genes encoding for transcription factors important for mammalian development. In T-cell acute lymphoblastic leukaemia (T-ALL) with translocation t(11;14)(p13;q11) or t(7;11)(q35;p13), a LIM-only protein, LMO2 is ectopically expressed in early immature T-cells. This LMO2 is ectopically expressed in early immature T-cells. This results in a characteristic abnormal T-cell differentiation that

Tse Wai Choi Eric =

Department of Medicine, Queen Mary Hospital

precedes overt leukaemia development. A sequestration model has been proposed as the mechanism of Lmo2-induced T-ALL. It is hypothesized that Ldb1-Lmo4 protein complex plays an essential role in normal T-cell differentiation and the disruption of this function, due to sequestration of Ldb1 by Lmo2, results in a block in the T-cell differentiation which precedes overt T-ALL development in patients. In this thesis, a mouse model system is employed to define the role of Lmo4 in Lmo2-induced T-ALL. Using chimaeric mice deriving from Lmo4 null murine embryonic stem (ES) cells, it showed that deficiency of Lmo4 did not result in the characteristic T-cell differentiation block seen in enforced Lmo2 expression. Furthermore, using rag complementation experiments, it was confirmed that Lmo4 did not play an essential role in lymphopoiesis. It is therefore concluded that Lmo4 does not play a role in Lmo2-induced T-ALL, although the sequestration hypothesis cannot be completely rejected.

Best Thesis Award (Silver Award Winner)

Detection of asymptomatic diabetic distal symmetric polyneuropathy with clinical examination and nerve conduction study in patients with Non-insulin dependent diabetes mellitus (NIDDM)



Professor WK Lam presents the award to Dr Lau

Background

Non-insulin dependent diabetes mellitus (NIDDM) is highly prevalent in our local population. Yet, local data concerning

Lau Siu Wah Herrick

Department of Medicine and Geriatrics, Our Lady of Marynoll Hospital

diabetic neuropathy are lacking. The problem of diabetic neuropathy, of which distal symmetric polyneuropathy comprises the majority, can be sizeable. Hence, the physical and social burden brought forward can be enormous. Since active treatment may improve prognosis of neuropathy, it is crucial to apply accurate diagnostic tool and achieve early detection of neuropathy or individuals at risk.

Method

80 voluntary NIDDM patients without symptoms of neuropathy were examined for evidence suggestive of peripheral neuropathy

using standard clinical examination tools and nerve conduction study (NCS). Risk factors possibly associated with neuropathy were evaluated. Accuracy of the two methods were compared and discussed. A control sample served as normal references for NCS parameters.

Results

Clinical examination identified abnormality in 5% patients. It showed high specificity when compared with NCS, which revealed abnormality suggestive of polyneuropathy in 23.8%. High HbA1c level (p<0.001) and presence of nephropathy (p=0.011) are independent risk factors for neuropathy. Abnormalities of lower limb NCS parameters and minimum F-latency are the most consistent findings in patients with abnormal NCS. Delay of tibial F-latency is observed in a significant proportion (13.1%) even in diabetic subjects with normal standard NCS findings.

Conclusion

A significant proportion of asymptomatic prevalent NIDDM already neuropathy detectable patients have neurophysiological level. There is no good consensus as to accuracy of clinical examination in diagnosis of neuropathy. Clinical foot examination including monofilament tests on dorsum and plantar aspect of feet, vibration threshold at big toes measured with neurothesiometer and ankle reflexes may not provide sufficient sensitivity for neuropathy screening in certain patients. NCS may be supplemented to routine foot examination for this purpose in patients at high risk for development of neuropathy. F-latency should be valuable parameter to be assessed in all diabetics with suspicion of early neuropathy.

Best Thesis Award (Bronze Award Winner)

Risk of subacute stent thrombosis after drug-eluting stent implantation: A comparison with bare-metal stents



Dr Kum wins the Bronze Award

Objective

We directly compared subacute stent thrombosis (SAT) risk between drug- eluting stents (DES) and bare metal stents (BMS) under same clinical setting and examined the predictors of SAT.

Background

There is concern about the potential higher risk of SAT after DES implantation.

Methods

There is a single centre study from cardiovascular catheterization laboratory, Brigham and Women's Hospital, Boston, MA, USA. This centre is a tertiary referral centre and provides 24-hour emergency services for primary angioplasty. All coronary interventions involving DES from 25th April, 2003 to 1st July,

Kum Chi Chiu Leo =

Department of Medicine and Therapeutics, Prince of Wales Hospital

2004 were reviewed for occurrence of SAT. BMS study period included all coronary interventions used BMS from 1st July 2002 to 25th March, 2003.

Results

A total of 1770 DES procedures and 1335 BMS procedures were performed during the two study periods. SAT occurred in 11 DES patients (0.62%) and 5 BMS patients (0.37%) (NS). The mean time to SAT occurrence was 6.0 days in the DES group and 7.6 days in the BMS group (NS). Both groups had similar pre-procedural clinical and lesion characteristics. The total stent length and the minimal luminal diameter of the stent post-procedure were 20.7mm and 2.82mm in the DES SAT group and 29.2mm and 2.90mm in the BMS SAT group (NS). Using a logistic model, three factors influenced the occurrence of SAT in DES cases: 1. Presentation with index AMI (OR 3.48, p=0.056); 2. Stent diameter < 3.0mm (OR 2.75, p=0.114); 3. Inability to take ASA or clopidogrel (OR 3.83, p=0.095).

Conclusion

SAT occurred in 0.62% of cases after DES implantation and was similar to BMS. Our dataset suggested presentation with index AMI, stent diameter<3.0mm and inability to take dual anti-platelet therapy may predict SAT occurrence.

Planning and Writing of Dissertation and Dissertation Appraisal Operational Guidelines for Trainers and Examiners

At the 168th Council Meeting of 16 September 2005, the following Operational Guidelines for the planning, writing and appraisal of dissertations for trainers and examiners were discussed and endorsed.

Guidelines for **Trainers** as Supervisors of Trainees in Dissertation Preparation and Writing

1 Objective of Dissertation Writing

Trainees are required to demonstrate their ability to capture updated knowledge in the topics chosen, understand the generally agreed priniciples and trend of development through critical review of the literature, and illustrate their understanding with local data which may consist of case reports or case series, descriptive or quality assurance reports in terms of process and/or outcome, and observational studies. The dissertation should be an original work of the trainee himself/herself, with emphasis on clarity of presentation, independent thinking and approach to problems, collection and analyses of data, and in particular the trainee's critical analysis of the subject chosen. Presentation of innovative work or prospective data is not mandatory.

2 Responsibility of Trainers

Trainers must guide and supervise trainees in the choice of topics, methodology and subsequent progress of dissertation writing, having due regard to their own experience, resources available to the trainee, and in particular time constraint faced by themselves and the trainees within the busy work environment in which higher physician training is conducted.

3 Identification of Specific Trainers

All trainees must be guided and supervised by one or more trainers in the process of dissertation writing. The name of the designated supervisor/trainer for the dissertation should be included in the submission of dissertation plan. Trainers who for any reason are unable to supervise their trainees for three months during the preparation process should designate another supervisor to the trainee such that continued guidance may be given.

4 Conducting Prospective Clinical Studies

Trainers who wish to advise their trainees to embark on prospective clinical studies must first ensure the availability of sufficient expertise within the relevant specialty team or teams in the hospital to give continuing guidance to the trainees concerned. Trainers must also advise their trainees in every step of planning, including lead time for approval of the study by Ethical Committees where human subjects are involved; pitfalls of informed consent and associated problems with recruitment; details of methodology and problems which may be encountered during the study; and the need for meticulous documentation throughout. Trainers must also bear in mind that, in the busy working environment of the Hospital Authority (HA), it is not easy for trainees to be able to complete prospective clinical studies within the period of Higher Physician Training. Trainers who are not conversant with research methods should refrain from advising their trainees to embark on original prospective research.

Guidelines for **Examiners** in Dissertation Appraisal

- It is important for examiners to review dissertations objectively to gauge the ability of the trainee in critical appraisal of the literature, and give objective ratings in accordance with the prevailing standards and requirements of the College.
- 2. Examiners should not place unduly high expectations with regard to the originality of dissertations. If critical reviews of the literature are chosen for dissertation, trainees may be allowed to present general and retrospective data which may not necessarily add to existing knowledge. See Appendix for examples of previously submitted dissertation.
- 3. The Dissertation Viva is designed to allow trainees to explain or defend their dissertations. To merit pass marks or above, trainees should possess good general knowledge of the topics chosen, and demonstrate reasonable efforts towards critical analysis within the limitations of retrospective studies or case series.
- 4. A general guide for assessment of dissertations is listed as follows:
 - (i) The importance and relevance of the topic to local patients;
 - (ii) Clarity of presentation;
 - (iii) Demonstration of critical and comprehensive review of the relevant literature; and
 - (iv) Independent thinking and analyses.

Prospective studies should in addition be scored according to

- (i) Clarity of objectives;
- (ii) Adequacy of methodology, data presentation and interpretation;
- (iii) Validity of conclusions;
- (iv) Originality and innovation; and
- (v) Contribution to knowledge.
- 5. Examiners should always bear in mind that the knowledge and experience of trainees attempting the Exit Assessment cannot be comparable to those of more senior specialists of their own levels.

Future Developments

- 1. To emphasise the importance of good planning for dissertation writing, Examiners are encouraged to discuss with trainees about the choice of topics and preliminary planning of their dissertations at the First Annual Assessment. At the Second Annual Assessment, Examiners should ensure there are no significant barriers or problems against the successful completion of their dissertations.
- 2. Relevant questions on clinical research training may be asked in the first and second Annual Assessment exercises, well before dissertation topics are formulated.
- 3. The Scientific Committee of the College may organize or sponsor relevant training in clinical research. Such training should be part of the Continuing Professional Development of both trainers and trainees.

* * * * * * *

Planning and Writing of Dissertation and Dissertation Appraisal Operational Guidelines for Trainees

At the 169th Council Meeting of 10 October 2005, the following Operational Guidelines for the planning, writing and appraisal of dissertations for trainees were discussed.

Guidelines for **Trainees** in Dissertation Preparation and Writing

1 Objective of Dissertation Writing

Trainees are required to demonstrate their ability to capture updated knowledge in the topics chosen, understand the generally agreed priniciples and trend of development through critical review of the literature, and illustrate their understanding with local data which may consist of case

reports or case series, descriptive or quality assurance reports in terms of process and/or outcome, and observational studies.

To emphasise the importance of good planning for dissertation writing, Examiners will be encouraged to discuss with trainees about the choice of topics and preliminary planning of their dissertations at the First Annual Assessment. At the Second Annual Assessment, Examiners will discuss with trainees to ensure there are no significant barriers or problems against the successful completion of their dissertations.

Relevant questions on clinical research training may also be asked in the first and second Annual Assessment exercises, well before dissertation topics are formulated.

2 Identification of Specific Trainers

All trainees must be guided and supervised by one or more trainers in the process of dissertation writing. The name of the designated supervisor/trainer for the dissertation should be included in the submission of dissertation plan. Should trainers be unable to supervise their trainees for three months during the preparation process, another supervisor should be designated to the trainee such that continued quidance may be given.

3 Standard

The dissertation should be an original work of the trainee himself/herself, with emphasis on clarity of presentation, independent thinking and approach to problems, collection and analyses of data, and in particular the trainee's critical analysis of the subject chosen. Presentation of innovative work or prospective data is not mandatory.

4 Conducting Critical Reviews of the Literature

Trainees should include general and retrospective data (local or overseas, where appropriate) which may or may not add to existing knowledge. See Appendix posted in the College website http://www.hkcp.org for examples of previously submitted dissertation.

5 Conducting Prospective Clinical Studies

Before any trainee embarks on prospective clinical studies, he/she must first consult his/her trainers who will advise them about the availability of sufficient expertise within the relevant specialty team or teams in the hospital to give continuing guidance. The trainee must be fully aware of, and involved in, every step of planning, including lead time for approval of the study by Ethics Committees where human subjects are involved; pitfalls of informed consent and associated problems with recruitment; details of methodology and problems which may be encountered

during the study; and the need for meticulous documentation throughout.

Guidelines for Dissertation Appraisal

- 1. A general guide for assessment of dissertations is listed as follows:
 - 1.1 (i) Importance and relevance of the topic to local patients;
 - (ii) Clarity of presentation;
 - (iii) Demonstration of critical and comprehensive review of the relevant literature; and
 - (iv) Independent thinking and analysis.

- 1.2 Prospective studies should in addition be scored according to
 - (i) Clarity of objectives;
 - (ii) Adequacy of methodology, data presentation and interpretation;
 - (iii) Validity of conclusions;
 - (iv) Originality and innovation; and
 - (v) Contribution to knowledge
- Trainees are required to explain or defend their dissertations at the Dissertation Viva. To merit pass marks or above, trainees should possess good general knowledge of the topics chosen, and demonstrate reasonable efforts towards critical analysis within the limitations of retrospective studies or case series.

* * * * * * *

Statistics on No. of Fellows in all Specialties Updated in December 2005

				F	ELLOW	S			
		HONG KO	USTER	HONG KONG EAST + WEST					
SPECIALTY	FELLOWS TOTAL (PP/DH/HA/ OTHERS)	PYNEH	RH	TWEH	FYKH	GH	QMH	TWH	CLUSTER
CARDIOLOGY	166	7	2	0	0	5	11	0	25
CRITICAL CARE MEDICINE	46	4	0	0	0	0	8	0	12
DERMATOLOGY & VENEREOLOGY	73	0	0	0	0	0	1	0	1
ENDOCRINOLOGY, DIABETES & METABOLISM	60	1	2	3	0	0	9	0	15
GASTROENTEROLOGY & HEPATOLOGY	107	6	2	0	0	0	10	1	19
GERIATRIC MEDICINE	139	6	12	4	3	0	5	0	30
HAEM/HAEM ONCOLOGY	37	3	0	0	0	0	8	0	11
IMMUNOLOGY & ALLERGY	6	0	0	0	0	0	1	0	1
INFECTIOUS DISEASE	19	1	0	0	0	0	1	0	2
MEDICAL ONCOLOGY	31	0	0	0	0	0	6	0	6
NEPHROLOGY	94	5	0	0	0	0	9	2	16
NEUROLOGY	62	4	3	0	0	0	5	1	13
PALLIATIVE MEDICINE	14	0	1	0	0	2	0	0	3
REHABILITATION	38	0	3	3	1	0	2	3	12
RESPIRATORY MEDICINE	129	7	8	0	0	11	10	1	37
RHEUMATOLOGY	39	3	2	1	0	0	4	1	11

			FELLOWS										
			LOON TRAL STER		LOON E LUSTER		ŀ	(OWL	KOWLOON CENTRAL + EAST + WEST				
SPECIALTY	FELLOWS TOTAL (PP/DH/HA/ OTHERS)	КН	QEH	нонн	ТКОН	UCH	СМС	KWH	OLMH	РМН	WTSH	YCH	CLUSTER
CARDIOLOGY	166	0	12	0	2	4	1	6	1	7	0	3	36
CRITICAL CARE MEDICINE	46	0	5	0	1	4	4	2	0	1	0	2	19
DERMATOLOGY & VENEREOLOGY	73	0	0	0	0	0	0	0	0	0	0	0	0
ENDOCRINOLOGY, DIABETES & METABOLISM	60	0	5	0	1	3	2	2	1	4	0	1	19
GASTROENTEROLOGY & HEPATOLOGY	107	0	9	0	3	2	6	6	1	11	0	6	44
GERIATRIC MEDICINE	139	5	3	6	2	11	7	8	1	10	4	5	62
HAEM/HAEM ONCOLOGY	37	0	5	0	1	1	0	0	0	2	0	0	9
IMMUNOLOGY & ALLERGY	6	0	0	0	0	0	0	0	0	0	0	0	0
INFECTIOUS DISEASE	19	0	1	0	0	0	0	0	0	5	0	1	7
MEDICAL ONCOLOGY	31	0	1	0	0	0	0	0	0	1	0	0	2
NEPHROLOGY	94	0	7	2	2	4	3	5	0	7	0	2	32
NEUROLOGY	62	0	8	0	1	3	0	4	1	2	1	0	20
PALLIATIVE MEDICINE	14	0	0	3	0	2	4	0	0	0	0	0	9
REHABILITATION	38	6	0	1	0	3	1	1	0	1	4	0	17
RESPIRATORY MEDICINE	129	7	7	5	3	4	3	2	0	5	6	1	43
RHEUMATOLOGY	39	1	2	0	0	2	2	1	0	3	0	1	12

					F	ELLOW	s		
		NEW T	ERRITOR	IES EAST	CLUST	TER		RRITORIES CLUSTER	NEW TERRITORIES
SPECIALTY	FELLOWS TOTAL (PP/DH/HA/ OTHERS)	AHNH	NDH	PWH	SH	TPH	РОН	ТМН	EAST + WEST CLUSTER
CARDIOLOGY	166	3	2	8	0	0	0	8	21
CRITICAL CARE MEDICINE	46	1	2	1	0	0	0	2	6
DERMATOLOGY & VENEREOLOGY	73	0	0	1	0	0	0	0	1
ENDOCRINOLOGY, DIABETES & METABOLISM	60	2	2	10	0	0	0	1	15
GASTROENTEROLOGY & HEPATOLOGY	107	2	2	7	0	0	0	9	20
GERIATRIC MEDICINE	139	3	1	3	6	4	1	11	29
HAEM/HAEM ONCOLOGY	37	0	0	3	0	0	0	4	7
IMMUNOLOGY & ALLERGY	6	0	0	0	0	0	0	0	0
INFECTIOUS DISEASE	19	1	0	1	0	0	0	3	5
MEDICAL ONCOLOGY	31	0	0	11	0	0	0	0	11
NEPHROLOGY	94	4	0	5	0	1	0	7	17
NEUROLOGY	62	1	2	5	0	0	0	2	10
PALLIATIVE MEDICINE	14	0	0	0	1	0	0	0	1
REHABILITATION	38	0	0	2	1	2	1	3	9
RESPIRATORY MEDICINE	129	3	3	5	0	1	0	7	19
RHEUMATOLOGY	39	1	1	3	0	2	0	1	8

Statistics on No. of Trainees in all Specialties Updated in December 2005

CARDIOLOGY OTHERS) THE STATE OF THE STATE O									TRAINEES							
CARDIOLOGY OTHERS) THE STATE OF THE STATE O			HONG	G KC	ONG EAS	ST C	LUSTER	1	HONG KONG WEST CLUSTER							
CARDIOLOGY 20 21 21 21 21 21 21 21 21 21 21 21 21 21	SPECIALTY		PYNEH	Н	RH		TWEF	ł	FYKH		GH		QMH		TWI	H
REPIRATOLOGY 1					YEAR	1						YE	AR			
REPUINCOLOGY & ALLERGY 14	CARDIOLOGY	20											1			
CRITICAL CARE MEDICINE 14 12-1 13 14 14-1 15-2 17 18 18 18 18 19 19 19 10 10 10 10 10 10 10																
2-1 3 3 3 3 3 3 3 3 3				4		2		0		0		4		8		0
STATE STAT	CRITICAL CARE MEDICINE	14														
DERMATOLOGY & VENEREOLOGY 1			3		3		3		3		3		3		3	
ENDOCRINOLOGY, DIABETES & 18	DEDILATED OCY & VENEDERA COV	-		\rightarrow		0		0		0		0		3		0
	DERMAIOLOGY & VENEREOLOGY	/	2										2			
ENDOCRINOLOGY, DIABETES & METABOLISM 2						0		0		0		0		0		0
METABOLISM 2	ENDOCRINOLOGY, DIABETES &	18		_												
GASTROENFEROLOGY & 17	METABOLISM															
HEPATOLOGY 15						1		3		0		0		6		0
STATE STAT	GASTROENTEROLOGY &	17											1			
GERIATRIC MEDICINE 15	HEPATOLOGI		3—1		3		3		3		3		3		3	
Color	CPD1/PD10 1/PD10-1			_		2		0		0		0		7		1
HAEM/HAEM ONCOLOGY 8	GERIATRIC MEDICINE	15													2	
HAEM/HAEM ONCOLOGY 8						11		3		3		0	_	2		0
	HAEM/HAEM ONCOLOGY	8		-		11										
IMMUNOLOGY & ALLERGY 0	1112/12/11122/12 01/00/20 01		2—1		2		2		2		2		2—1		2	
PALLIATIVE MEDICINE Part				3		0		0		0		0		7		0
STATE STAT	IMMUNOLOGY & ALLERGY	0		- 1									1			
INFECTIOUS DISEASE 9 1 1 1 1 1 1 1 1 1 1 1 1																
NEPHROLOGY			4	0	4	0		0	4	0	4	0	4	1	4	0
MEDICAL ONCOLOGY 5 1 1 2 3 4 0 4	INFECTIOUS DISEASE	9														
MEDICAL ONCOLOGY 1			3		3-1	0	3	0	3		3	0	3	0	3	0
NEPHROLOGY	MEDICAL ONCOLOGY	F		-		0		0		0		0		0		0
NEPHROLOGY 13 1	MEDICAL ONCOLOGY	5	2		2		2		2		2		2		2	
NEPHROLOGY 13						0		0		0		0	1	6		0
PALLIATIVE MEDICINE 2	NEPHROLOGY	13	1		1		1		1		1		1			
NEUROLOGY 111 1																
PALLIATIVE MEDICINE 2						0		0		0		0		5		2
PALLIATIVE MEDICINE 2 1 1 2 1 1 1 1 2 2 3 3 4 0 4 0 4 1 1 1 1 1 1 1 1 1 1 1 1	NEUROLOGY	11											1			
PALLIATIVE MEDICINE 2 1 1 2 2 3 3 3 3 3 3 3 3 3 3 3			3		3	2	3		3		3	0	3		3	-
REHABILITATION 4 1 1 2 3 4 0 4 0 4 1 1 1 1 2 2 3 3 3 3 3 3 3 3 3 4 0 6 0 6 6	DALLIATIVE MEDICINE	2		-		3		0		U		0		4		0
REHABILITATION 4 1 1 1 1 1 1 1 1 1 1 1 1	FALLIATIVE MEDICINE	2	2		2		2		2		2		2		2	
REHABILITATION 4 1 2 2 2 3 3 3 4 0 4 1 1 1 1 2 2 3 3 3 3 3 3 3 4 0 4 0 1 1 1 1 1 1 1 1 1 1 1 1						1		0		0		2	1	0		0
RESPIRATORY MEDICINE 22 1-1 2-1 2 3 4 2 4 0 4 0 4 0 4 1 4 2 RESPIRATORY MEDICINE 22 1-1 2-1 2 3 3 4 2 4 5 4 0 4 0 4 0 4 1 1 1 1 1 2 1 2 2 2 3 3 3 3 3 3 3 4 2 3 4 2 4 5 4 0 4 0 4 0 4-1 7 4 5 4 0 RHEUMATOLOGY 9 1 1 2-1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	REHABILITATION	4	1		1		1		1		1		1		1	
RESPIRATORY MEDICINE 22 1-1 2-1 2 3 3 3 4 2 4 0 4 0 4 0 4 1 4 2 RESPIRATORY MEDICINE 22 1-1 2-1 2 3 3 4 2 4 5 4 0 4 0 4 0 4-1 7 4 5 4 0 RHEUMATOLOGY 9 1 1 2-1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3																
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						3		2		0		0		1		2
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	RESPIRATORY MEDICINE	22														
RHEUMATOLOGY 9 1 2 1 2 2 3 3 3 3 1 1 1 1 1 1 2 2 2 3 3 3 3			3		3		3		3		3		3		3	
	DUELLA ATOLOGY	0		-		5		0		0		7		5		0
	KHEUMATOLOGY	9			2								1		2	
						1		0		0		0		3		1

NOWLOON SPECIALY TAINES TOTAL TAINES TAINES TOTAL TAINES TOTAL TAINES TOTAL TAINES TAINE								TRAINEES	S				
CARDIOLOGY ORADIOLOGY ORADIO			CEN	TRAL	KOWLOG	ON EAST				OWLOOM	N WEST C	CLUSTER	
CARDIOLOGY ORDINATION ORDINA	SPECIALTY				НОНН		UCH	СМС	KWH			WTSH	YCH
CRITICAL CARE MEDICINE		(PP/DH/HA/	YE	AR		YEAR				YE	EAR		
CRITICAL CARE MEDICINE	CARDIOLOGY	20									I		
PRINCE STATE STA			3	3	3	3	3	3—1	3	3	3—1	3	
STATE STAT	CRITICAL CARE MEDICINE	14								1	I		1
ENDOCRINOLOGY, DIABETES & METABOLISM 18			3	3	3	3	3	3	3	3	3—1	3	3
STATE STAT		7							_		I		
DABETES & METABOLISM 2	VENEREOLOGI		3	3	3	3	3	3	3	3	3	3	3
STATEMENTEROLOGY & 17 1		18				1					1 -	1	1
EPATOLOGY			3	3	3	3—1	3	3—1	3	3	3	3	3
SERIATRIC MEDICINE 15		17				1					1	1	1
REPHROLOGY S			3	3	3	3	3	3	3	3	3	3	3
HAEM/HAEM ONCOLOGY S	GERIATRIC MEDICINE	15				1		1		1	1	1	1
HAEM/HAEM ONCOLOGY A			3-1	3	3—1	3	3	3	3	3	3—1	3	3
MMUINOLOGY & ALLERGY O	HAEM/HAEM ONCOLOGY	8	1	1	1	1	1	1	1	1	1—1	1	1
REPHROLOGY 13 1 1 1 1 1 1 1 1			3	3—1	3	3	3	3	3	3	3—1	3	3
NFECTIOUS DISEASE 9	IMMUNOLOGY & ALLERGY	0						1			1	1	1
NEPHROLOGY			3	3	3	3	3	3	3	3	3	3	3
MEDICAL ONCOLOGY Sample	INFECTIOUS DISEASE	9						1		1	1	1	
NEPHROLOGY			3	3	3	3	3—1	3	3—1	3	3	3	3
NEPHROLOGY 13 1	MEDICAL ONCOLOGY	5											
NEUROLOGY			3	3	3		3	3	3	3	3	$\begin{bmatrix} 2 \\ 3 \\ 4 \end{bmatrix}$	3
NEUROLOGY 11 11 1	NEPHROLOGY	13								1			
PALLIATIVE MEDICINE 2 1 1 2 3 3 4 0 4 5 4 0 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			3	3	3	3	3—1	3—1	3	3—1	3	3	3
PALLIATIVE MEDICINE 2 1 1 2 1 1 1 1 1 1 1 1 1	NEUROLOGY	11									1		
REHABILITATION 4 1 1 1 1 1 1 1 1 1 1 1 1			3	3	3	3	3	3	3—1	3	3		3
REHABILITATION 4 1 1 1 1 1 1 1 1 1 1 1 1	PALLIATIVE MEDICINE	2					_				-	1	1
REHABILITATION 4 1 2-1 2 2 2 2 2 2 2 2 2 3 3 3 3			3	3	3	3	3	3	3	3	3	3	3
3-1 3 3 3 3 3 3 3 3 3	REHABILITATION	4			1	1	1	1	1	1	1	1	1
RESPIRATORY MEDICINE 22 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			3-1	3	3	3	3	3	3	3	3	3	3
	RESPIRATORY MEDICINE	22	1 2			1			1—2 2—1	1 2	1 -	1	1
3 3-1 3-1 3 3 3 3 3 3 3			3	3—1	3—1	3	3	3	3	3	3	3	3
RHEUMATOLOGY 9 1 1—1 1 1 1 1 1 1—1 1 1 1 1 1 1 1 1 1	RHEUMATOLOGY	9	1	1—1	1	1	1	1	1	1—1	1	1	1
$ \begin{vmatrix} 2 & 2 & 3 & 1 & 2 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3 & 3$			3	3—1	3	3	3—1	3	3—1	3	3	3	3

Training

							TRAIN	IEES	S					
			NEW T	ERRI	TORIES	EAS	T CLUST	ER					RITORIE CLUSTER	
SPECIALTY	TRAINEES TOTAL	AHNH	ND	Н	PWH	[SH		ТРН		POI		TME	_
	(PP/DH/HA/ OTHERS)				YEAR	2						YE	AR	
CARDIOLOGY	20	1 2 3 4	1—1 2 3 4—2	2	1 2—1 3—1 4	5	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2—1 3 4	6
CRITICAL CARE MEDICINE	14	1 2 3 4	1 2 3 1 4	1	1 2 3 4	1	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	1
DERMATOLOGY & VENEREOLOGY	7	1 2 3 4	1 2 3 0 4	0	1 2—1 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0
ENDOCRINOLOGY, DIABETES & METABOLISM	18	1 2 3 4	1 2 3 4—1	1	1—1 2—1 3—1 4	9	1 2—1 3—1 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3—1 4	1
GASTROENTEROLOGY & HEPATOLOGY	17	1 2 3 4	$ \begin{array}{c c} 1 \\ 2-1 \\ 3-1 \\ 4-1 \end{array} $	2	1—3 2 3—1 4	7	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1—1 2 3—1 4	5
GERIATRIC MEDICINE	15	1 2 3 4	1 2 3 4	1	1 2 3 4	2	1 2—1 3 4	6	1 2 3 4—1	2	1 2 3 4	1	1 2 3 4	8
HAEM/HAEM ONCOLOGY	8	1 2 3 4	1 2 3 0 4	0	1 2 3 4	3	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1—1 2 3 4	2
IMMUNOLOGY & ALLERGY	0	1 2 3 4	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0
INFECTIOUS DISEASE	9	1 2 3 4	1 2 3 4	0	1—1 2 3 4	1	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4—1	2
MEDICAL ONCOLOGY	5	1 2 3 4	1 2 3 9 4	0	1 2—2 3 4—1	6	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0
NEPHROLOGY	13	1 2 3 4—2	1 2 3 4	0	1 2 3—1 4	5	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0	1 2 3 4	5
NEUROLOGY	11	1 2 3—1 4	1—1 2 3 4	1	1 2—1 3 4	4	1 2—1 3—1 4	0	1 2 3 4	0	1 2 3 4	0	1 2—1 3 4	1
PALLIATIVE MEDICINE	2	1 2 3 4	1 2 3 9 4	0	1 2 3 4	0	1 2 3 4	1	1 2 3 4	0	1 2 3 4	0	1 2 3 4	0
REHABILITATION	4	1 2 3 4	1 2 3 0 4	0	1 2 3 4	2	1 2 3 4	1	1 2 3 4	2	1 2 3 4	1	1 2—1 3—1 4	2
RESPIRATORY MEDICINE	22	1 2 3 4	1—2 2—1 3 4	3	1 2 3—1 4	4	1—1 2 3 4	0	1 2 3 4	1	1 2 3 4	0	1 2 3 4—2	5
RHEUMATOLOGY	9	1 2 3 4	1 2 3 4	0	1 2 3 4	3	1 2 3 4	0	1 2 3—1 4	1	1 2 3—1 4	0	1 2 3 4—1	1

No. of trainers is shown in italics in right low hand corner of each hospital

SPECIALTY	TRAINEES TOTAL (PP/DH/HA/OTHERS)	TRAINEES
		DH
DERMATOLOGY & VENEREOLOGY	7	1
		2—4
		4—2 16
GASTROENTEROLOGY & HEPATOLOGY	17	1
		3
		4 0
IMMUNOLOGY & ALLERGY	0	1
		3
		4 2
RESPIRATORY MEDICINE	24	1 2
		3
		4 5

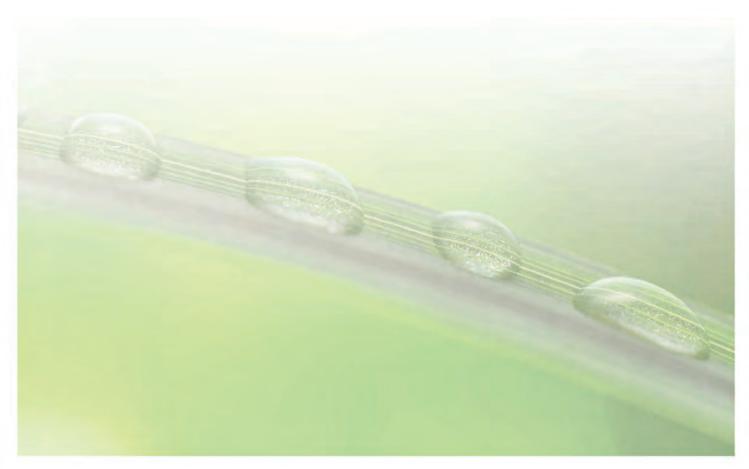
 $No.\ of\ trainers\ is\ shown\ in\ italics\ in\ right\ low\ hand\ corner\ of\ each\ hospital$

Examinations and Results

MRCP(UK) Part 2 Clinical Examination PACES - 2006

Examination Date	6-10 th March 2006 23-27 th October 2006
Closing dates for application	6 th January 2006 25 th August 2006

Pass rate of PACES for the year 2001-2005:					
October 2001	36/72 = 50%				
February 2002	34/74 = 46%				
October 2002	29/72 = 40%				
February 2003	30/69 = 43%				
October 2003	27/59 = 46%				
March 2004	39/64 = 61%				
October 2004	26/69 = 38%				
March 2005	35/75 = 47%				



2006 Photo Competition – SYNAPSE



SYNAPSE is now accepting entries for its photography competition. Photographs can be of any subject. For example, landscape photos, photos illustrating healthy lifestyle or photos related to medicine and health care are some suggested topics.

There will be two categories for prize awards: **Outstanding Photographs and Interesting Photographs**. Outstanding photos will be judged on the technical excellence, originality and artistic creativity. Interesting photographs will be awarded for being eye-catching, unique and unusual.

Deadline

1 April 2006

Selection

Panel (Editor, President of HKCP, expert photographer) will select best 3 photos for the two categories, with a total of six prize awards.

Prizes

- The six winners will each be awarded a book coupon valued at HK\$ 1000
- Winners will be announced in Synapse Summer 2006 edition
- All winning photos may be selected for the cover of future issues of Synapse.

Rules

- 1. All Members and Fellows of the HKCP as well as basic physician trainees registered with the HKCP are invited to submit entries.
- 2. Members of the HKCP council and the editorial board of Synapse are not eligible to join this contest.
- 3. Each entrant may submit a maximum of 3 photographs.
- 4. The photograph(s) should be the original work of the participant.
- 5. Photographs may be in color or black and white.
- 6. Each photograph must be printed with dimensions 8x10 inches (8R). Electronic images, slides or video frame grabs are not accepted.
- 7. Each photo must be accompanied with the entry form provided or the entry will be disqualified.
- 3. Please send the photograph(s), together with the entry form and a soft electronic copy (optional) in a sealed envelope to the following address:

Dr Carolyn Kng

Department of Integrated Medical Services

Ruttonjee Hospital

266 Queens' Road East

Hong Kong

- 9. All prints will not be returned and will remain the property of the HKCP.
- 10. HKCP reserves the right to reproduce the photographs in Synapse, with due acknowledgement to be given to the photographer.
- 11. The decision of the selection panel will be final and irrevocable.

Queries

Contact Dr. Carolyn Kng for clarification at 2291 2000

Entry	Form
(Please use ONE entry form for ONE photo)	
Name (English):	Name (Chinese):
Title: Mr. / Mrs. / Ms. / Dr. /Prof. / other Address:	
e-mail address:	Contact phone no.:
Membership status: Member / Fellow / Basic Physician Trainee	Hospital
Specialty	Title of photo:
Category: Outstanding Photographs OR Interesting Photographs (please delete or circ I hereby certify that the photo I am about to submit is my original work and owner. I understand that it may be published in Synapse.	le as appropriate) I has never been copyrighted or, if copyrighted, that I am the sole copyright
Signed	Date



Professor
Gary Nicholls

John Mackay

Professor Nicholls at the HKU examiners' dinner in December 2005

t an age when some people are making plans for retirement Professor Gary Nicholls is happy in the knowledge that New Zealand has no automatic retirement age, on the basis that to have one would be 'age discrimination'.

Certainly there is nothing to suggest that he is slowing down in his academic career. This year he and his research team have already published ten peer-reviewed articles in major journals, and have another eight under submission.

Teamwork and being able to communicate with colleagues have been major factors in Professor Nicholl's career, a skill learned perhaps when playing rugby in New Zealand as a student and young doctor.

His university pre-clinical education was at Otago University, in Dunedin at the foot of the South Island in New Zealand, the clinical years being spent at Christchurch, one of the three cities with teaching hospitals, the others being Dunedin and Wellington. He graduated in 1968 with the Ardagh Memorial Prize for the most outstanding final year student.

Junior hospital posts in Christchurch hospitals led four years later to the Membership of the Australasian College of Physicians; and after another four years as a research Fellow, to the award of an M.D. for a thesis on "A Study of Aldosterone and its Control in Patients with Heart Failure."

This set the pattern of his subsequent career in investigations of the hormonal effects on heart failure, renal function and blood pressure.

From 1975 to 1977 he and his young family lived in Glasgow. While he did research with the West of Scotland hypertension unit the eldest of his three boys went to school for the first time, and developed a Glasgow accent.

His next research position was at Michigan where he was Assistant, then Associate, Professor of Medicine at Michigan Medical School, and finally the Associate Director of the Clinical Research Centre. By now his children all spoke with an American accent.

In 1980 the family moved back to New Zealand where he was appointed Specialist Consultant Physician in the Departments of Endocrinology and Cardiology at the Princess Margaret Hospital Christchurch, and the children became New-Zealanders again.

It was in 1987 that he began a three-year appointment as Professor of Medicine and Head of Department of Medicine at the Prince of Wales Hospital, the Chinese University of Hong Kong. He was the second head of the department following Professor John Vallence – Owen.

Professor Nicholls has very happy memories of Hong Kong; of bright, hard-working students with good basic knowledge and bed-side skills, some of whom he has been delighted to meet recently, themselves now in senior positions in Hong Kong: of walking the hills in the Country Parks, particularly Tai Mo Shan, with his camera, able to photograph the countryside in air remarkably cleaner than it is now: and of watching two of his children enjoying their time here and at Shatin College. (The eldest son was studying in New Zealand).

On his return to Christchurch in 1991 it was as the Professor of Medicine and Head of Department of Medicine, a position he held for the next four years, continuing as Professor in Medicine until 2002.

This was a time of change in the New Zealand health system, a time when management of public hospitals was handed to people with commercial and business backgrounds, leaving doctors without a voice in management. Disagreeing strongly with this development Professor Nicholls and many colleagues fought hard to prevent it, to no avail.

It was a good time for another spell abroad. His boys were already launched on their careers - a teacher, a doctor, and a lawyer - so

he and his wife moved to the United Arab Emirates where he took up the appointment of Chairman and Professor of Medicine, the Department of Medicine, University of the United Arab Emirates at Al Ain. Despite enjoying his time in the UAE he has a position awaiting him back in New Zealand where he is looking forward to continuing his research into the distant future.

Throughout his career the element that gives him the greatest pleasure is successful team achievements, and these have been many.

During the last three decades Professor Nicholls and members of his research teams have published papers documenting ground-breaking results on the effects of vasoactive hormones on heart failure and hypertension.

His group were the first in the world to report on the biological effects of atrial natriuretic peptide (ANP) in man, and the amino acid analysis of ANP in man; and first to report on brain natriuretic peptide (BNP), its assay, and its place in the management of patients with heart failure.

Research on the endothelin-1, urocortin and urotensin II is ongoing. Every advance in knowledge opens the doors to further exploration, Professor Nicholls happily explains.

The other elements of his career, clinical practice and teaching also give him great satisfaction. He has given named lectures all over the world and is on the editorial boards of numerous journals.

When asked how he had managed to achieve such an immense body of work already in his career – two books, 31 book chapters, 369 major articles in peer-reviewed journals, and several hundred other publications such as abstracts, letters – he responded

modestly that it was possible if one had a team to work with. He did admit that it had meant over the years spending evenings and week-ends working, time when he would also have liked to have spent with his family, and time to indulge his other interests.

On the sporting side he used to play rugby, particularly with the successful Christchurch medical team made up of students, doctors and others working in the hospitals, a combination which he felt was excellent for the functioning of the medical community. Tennis and squash are two other sports he enjoys, and mountain-walking. He also appreciates classical music, and plays the cello.

Professor Nicholls declined to offer advice as to how Hong Kong should move forward in developing and financing the health service. He did say in general terms that for any country the basis of a good national health service is a sound primary health care system; and that management of hospitals should not be taken entirely out of the hands of doctors.

He did have advice for young doctors; to try and get overseas experience, to have exposure to different ways of treating patients, to broaden research experience and make useful contact with researchers in other countries, and to improve language skills. The universal language for science is now English, and if a doctor has high career ambitions it is necessary to be fluent in speaking as well as in writing it.

Despite his many commitments during this month's brief visit to Hong Kong, Professor Nicholls is looking forward to retracing his steps to the top of Tai Mo Shan. Fourteen years and a right knee replacement after his last ascent, he looks fit and enthusiastic enough to do it without any problems.



Professor and Mrs Nicholls (first two seated on the left) pictured here in Dec 2005 with the other staff of the Department of Medicine, Prince of Wales Hospital, Chinese University of Hong Kong where he was the Chairman and Head of the Department from 1987 to 1991