

BETTER.



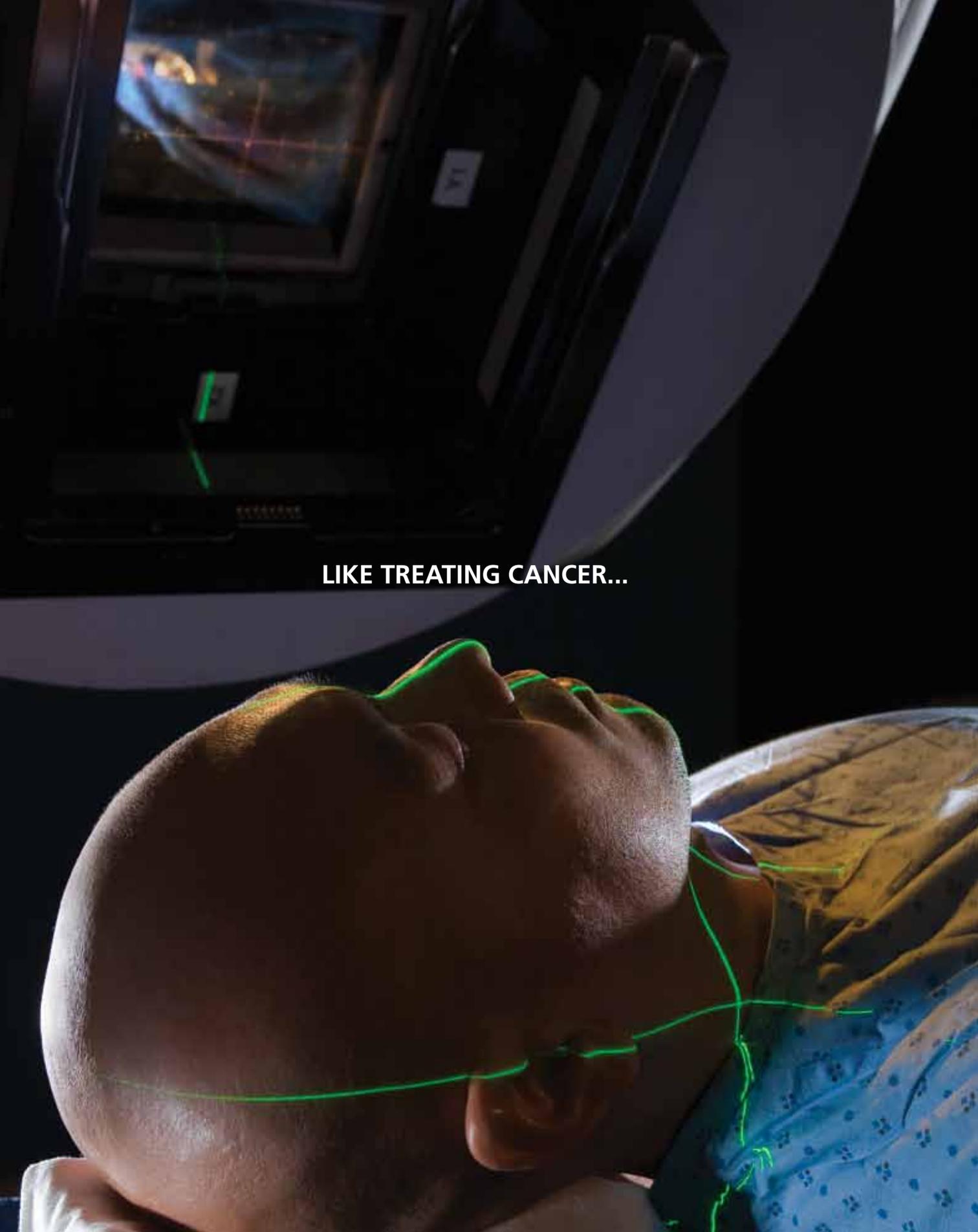
The National University
Health System
Corporate Yearbook
08/09

GOOD ENOUGH IS JUST NOT GOOD ENOUGH.

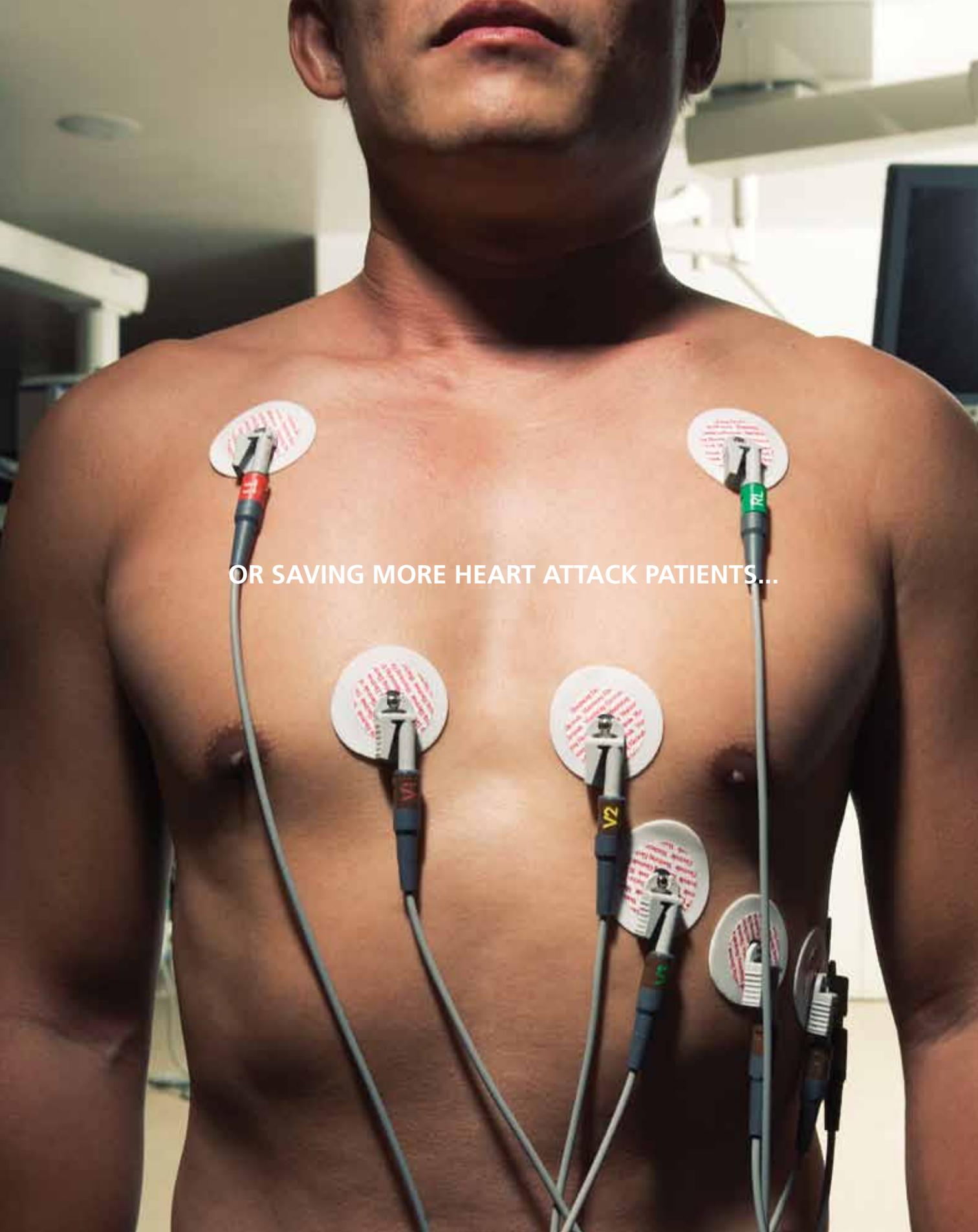
We believe that what is good enough for today will not do for tomorrow. That is why we strive to always do better. After all, why leave well enough alone when we can help to bring about a better tomorrow?

CONTENTS

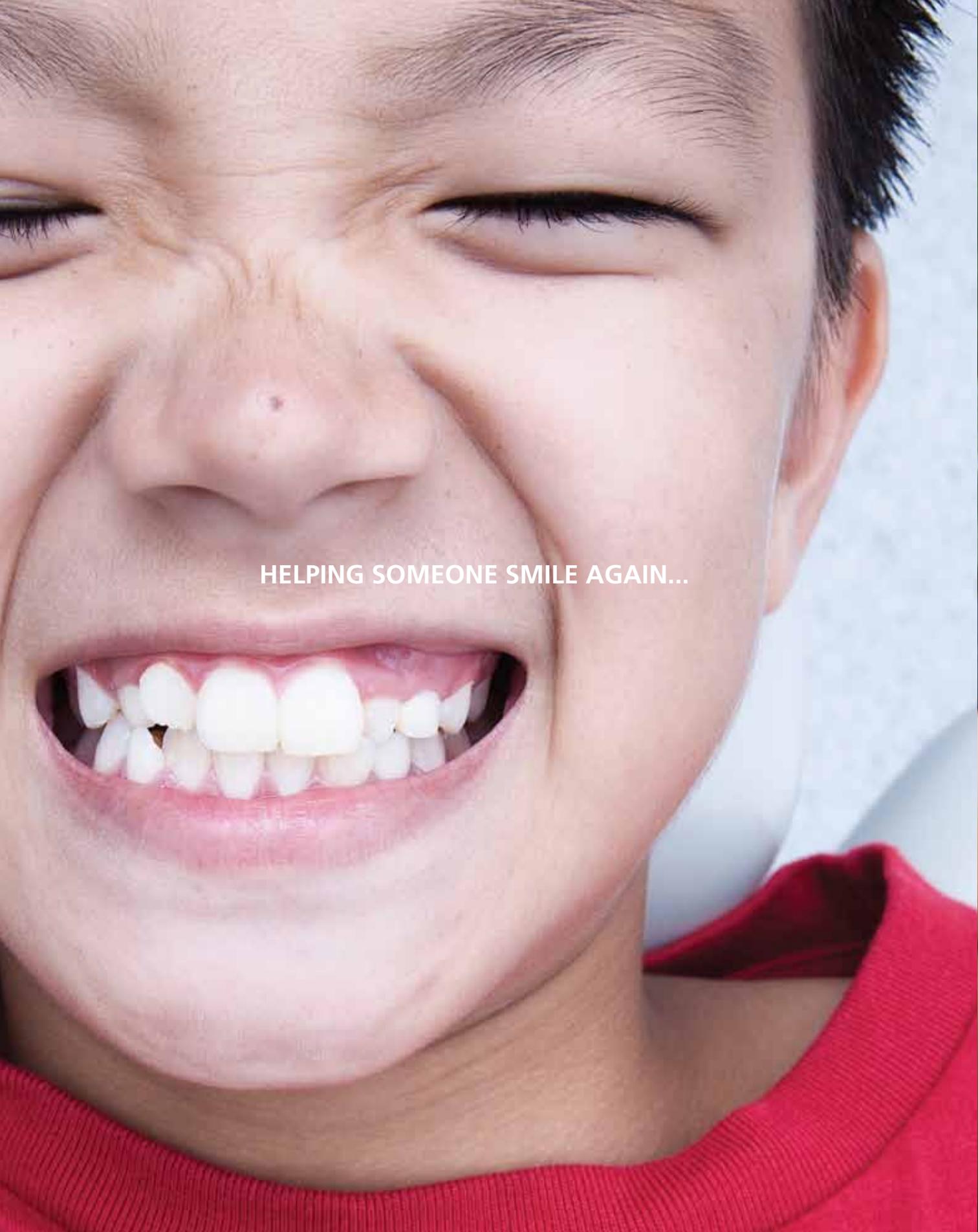
06 WE WANT LIFE TO GET BETTER. – Why the NUHS **10** A BETTER CURE CAN ALWAYS BE FOUND. – Research
16 BETTER DOCTORS WILL COME FROM THE BEST TEACHERS. – Education **22** ULTIMATELY, WE ARE HERE TO
DELIVER BETTER CLINICAL CARE. – Clinical Care **34** OUR DONORS MAKE IT POSSIBLE FOR US TO MAKE THINGS
BETTER. **36** A BETTER SYSTEM. – Chairman's Message **37** THE BOARD. **38** A BETTER FUTURE. – Chief Executive's Message
40 THE MANAGEMENT TEAM. **41** A GOOD YEAR. – Milestones



LIKE TREATING CANCER...



OR SAVING MORE HEART ATTACK PATIENTS...



HELPING SOMEONE SMILE AGAIN...



OR JUST SIMPLY HELPING PEOPLE GET ON WITH LIFE.

WE WANT
LIFE TO GET
BETTER.

That's why we have formed the National University Health System (NUHS) by bringing together the National University Hospital (NUH), the NUS Yong Loo Lin School of Medicine and the NUS Faculty of Dentistry under one common governance. We do this with a clear objective.



NATIONAL OUTSTANDING CLINICIAN, 2009

Professor John Eu-Li Wong
Deputy Chief Executive, NUHS,
Dean, NUS Yong Loo Lin School of Medicine
and Director, National University Cancer
Institute, Singapore



**NATIONAL OUTSTANDING
CLINICIAN MENTOR, 2009**

Professor Low Poh Sim
Chair of the University Children's
Medical Institute, NUH



**NATIONAL OUTSTANDING
CLINICIAN MENTOR, 2009**

Professor Chew Chong Lin
Director, Division of Graduate
Dental Studies, NUS Faculty of Dentistry
and Senior Consultant, Department of Restorative
Dentistry, University Dental Cluster, NUH

WHY THE NUHS?
EVERY STORY HAS A GENESIS. THE NATIONAL UNIVERSITY HOSPITAL, NUS YONG LOO LIN SCHOOL OF MEDICINE AND NUS FACULTY OF DENTISTRY CAME TOGETHER TO FORM THE NUHS FOR TWO REASONS. THE FIRST IS POTENTIAL. THE SECOND, EFFECTIVENESS.

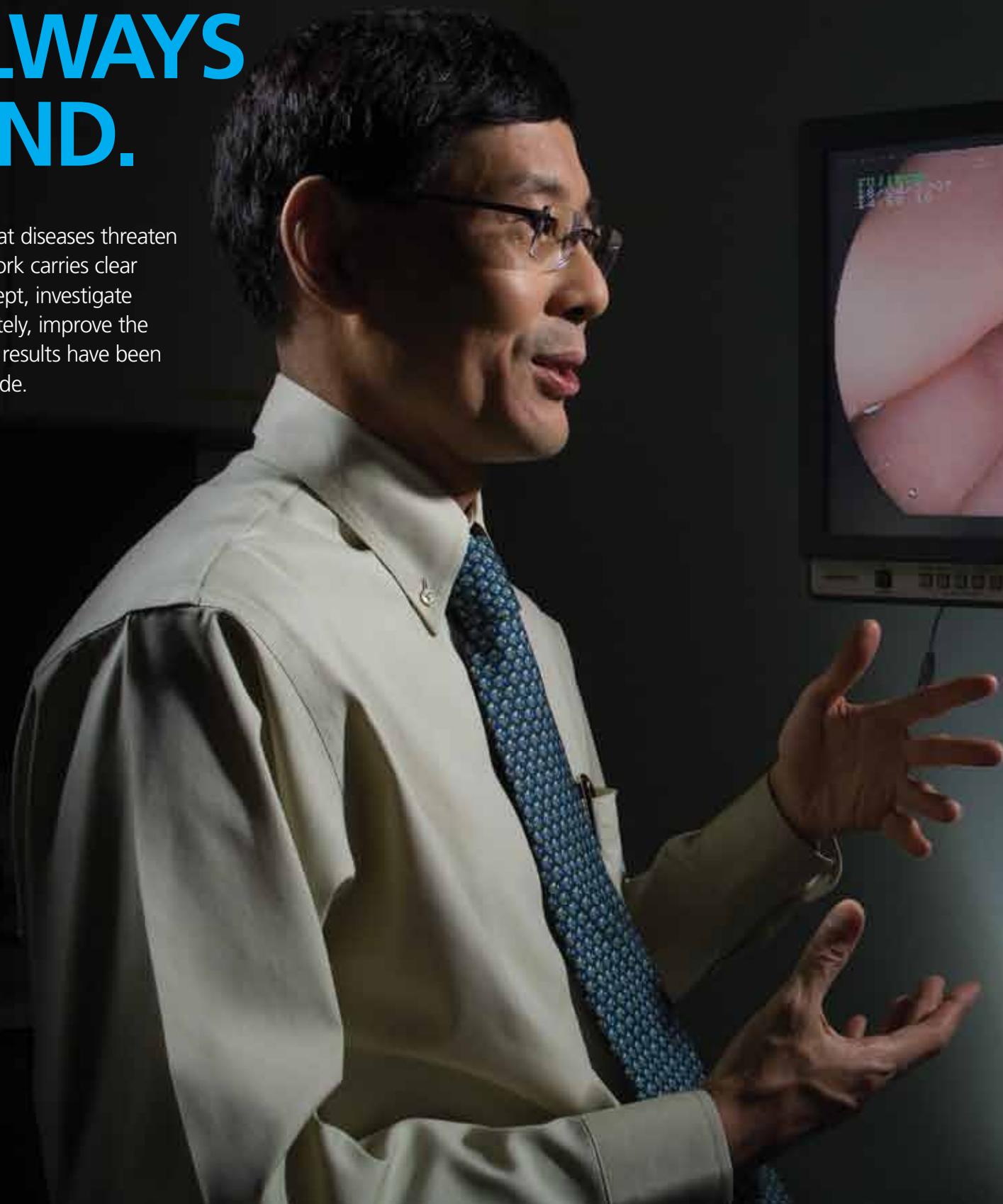
One objective is to ride on the success of Singapore's biomedical sciences sector by enhancing and enabling translational clinical research to deal effectively with diseases that affect Singaporeans. In helping to shape the future form and practice of medicine, the NUHS also augments Singapore's growing reputation as a regional medical centre of excellence.

Then, in the area of effectiveness, the NUHS provides fertile ground for healthcare professionals, faculty and staff to work closely together. Drawing on the research and teaching strengths of the academic campus and merging these with the clinical capabilities of a teaching hospital, the NUHS stands out as an academic medical centre that is dedicated to bringing better healthcare to Singaporeans.

IN A NUTSHELL, THE ACADEMIC MEDICAL CENTRE THAT IS THE NUHS IS DESIGNED TO BE BETTER. IT IS A SYSTEM THAT SYNERGISES THREE KEY FOCUS AREAS: RESEARCH, EDUCATION AND CLINICAL CARE.

A BETTER CURE CAN ALWAYS BE FOUND.

What's ailing Singaporeans? What diseases threaten them? At the NUHS, research work carries clear goals: to establish proof of concept, investigate the Asian phenotype and ultimately, improve the health of Singaporeans. To date, results have been heartening. Progress is being made.



CANCER HUNTERS

Lives are being saved. Associate Professor Yeoh Khay Guan of the NUS Yong Loo Lin School of Medicine and his team's quest to stop gastric cancer in its tracks involves screening to pick up the disease at its very earliest stages. The disease kills 250 people here every year and is the fifth most common cancer in Singaporean men. Since 2007, 2,300 people have been screened; 10 people were found with silent cancers so early that they would not have been detected on routine care. Thanks to this team of cancer researchers, these patients are alive and well.

MAKING LIGHT WORK OF DENTAL TREATMENT.

Here is something to chew on: lasers to strengthen teeth.

This is no science fiction. **Associate Professor Stephen Hsu** and his research team are doing just that. In wielding lasers to strengthen the structure of teeth, they have found that these energy beams protect teeth enamel against the penetration of acid produced by bacteria in the mouth.

They have also discovered that laser-treated teeth become less habitable for bacteria.

These findings may bring A/Prof Hsu and his team one step closer to realising the clinical application of lasers in preventing tooth decay.



THERE'S MORE TO IT THAN MEETS THE EYE.

The eyes are the windows to the soul, as the old saying goes. Those orbs are also mirrors of the state of our health. And in medical science's never-ending struggle against diseases and illnesses, the fight has opened a new front – to predict the risk of heart disease, stroke and diabetes by studying a person's eyes. Precious insights are being gained by NUHS ophthalmologist **Professor Wong Tien Yin** and his team through their groundbreaking research, which may result in the human eye becoming a model to study early diseases for the discovery of new preventive strategies and treatment. In myopia-stricken Singapore, that is news to gladden the heart and light up one's eyes.



GRAPPLING WITH 'ASIAN DISEASE'.

In a formative research thrust that may profoundly influence how metabolic diseases with Asian features are managed, prevented and treated, **Associate Professor Chong Yap Seng** from the Department of Obstetrics and Gynaecology at the National University Hospital has been awarded a Translational and Clinical Research grant of S\$25 million to investigate the growing epidemic of metabolic diseases in Singapore.

Working with a team comprising local and international researchers, this flagship research programme will focus on the developmental aspects of metabolic disease and address an emerging area of science that can enhance public health policies and guide clinical care of the rapidly growing populace affected by Type 2 Diabetes and its related diseases.

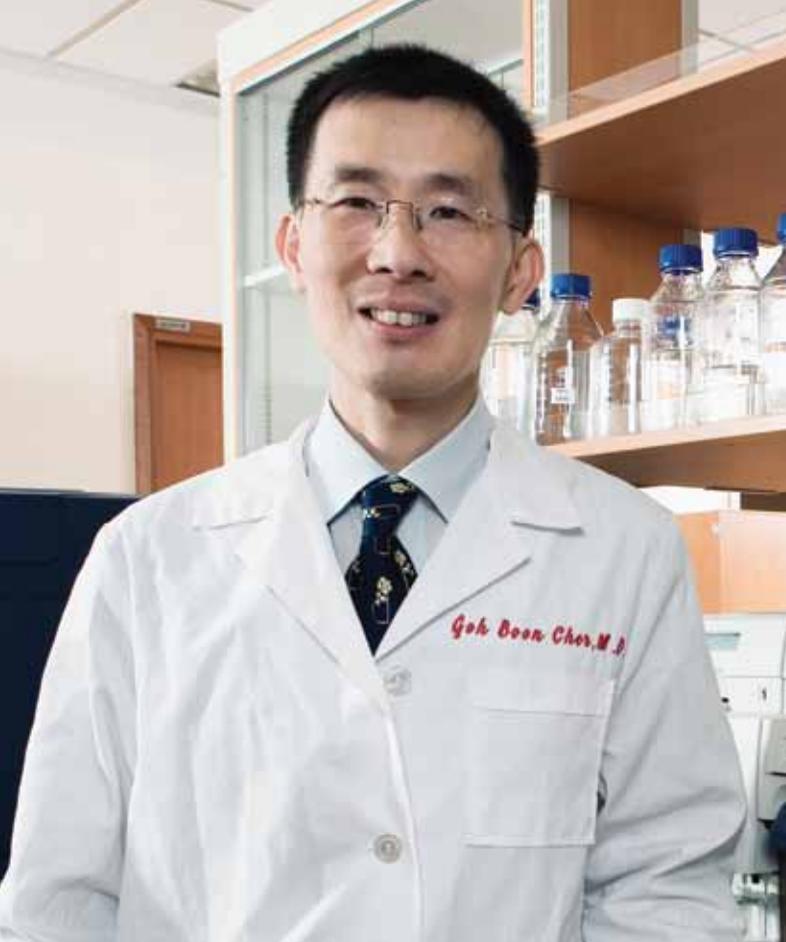


A BREAKTHROUGH THAT GROWS AND GROWS.

Researchers from A*STAR and the NUS Yong Loo Lin School of Medicine have scored a first in developing an unlimited number of pure insulin-producing cells from mouse embryonic stem cells.

The team of researchers jointly led by **Research Associate Professor Lim Sai Kiang** (left) at the Department of Surgery and **Research Associate Professor Li Guodong** at the National University Medical Institutes, found that these pure insulin-producing cells, which are molecularly and structurally similar to the insulin-producing cells found in the pancreas, are highly effective in treating diabetes. When transplanted into diabetic mice, the pure insulin-producing cells corrected high blood glucose levels in the animals. Subsequent removal of the transplanted cells from the animals restored their blood glucose to their original diabetic level.





FINDING ANSWERS IN THE GENES.

To thin the blood and prevent blood clots forming, stroke and heart attack patients are given warfarin by doctors. The question is: how much to give? Too much may result in internal bleeding. NUHS researchers have come up with a formula that calculates precisely how much of the blood-thinning drug patients need – depending on their genetic makeup.

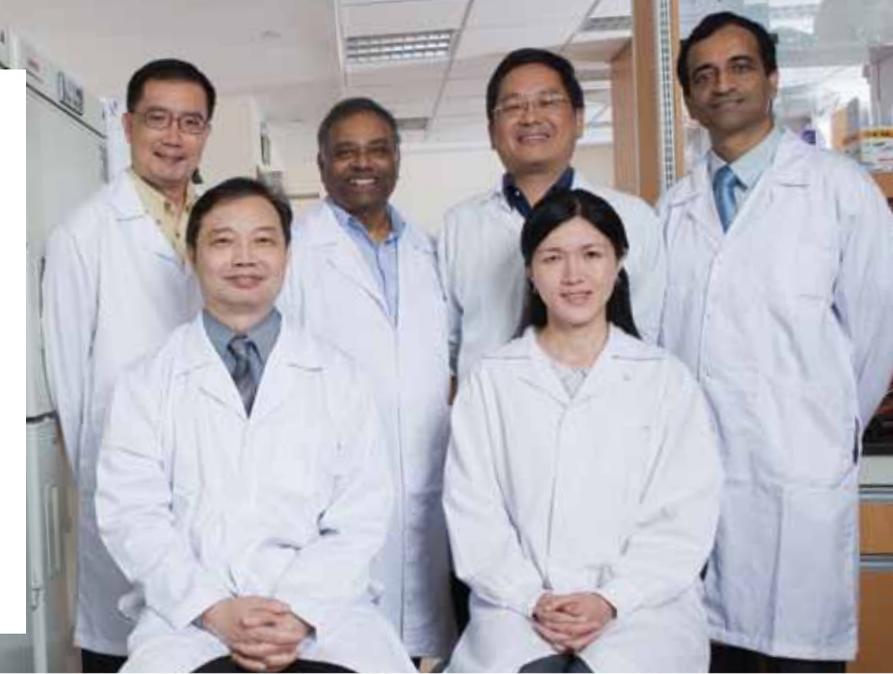
With a research team led by **Adjunct Associate Professor Goh Boon Cher**, Director of the NUHS Investigational Medicine Unit, path-finding work on warfarin spells hope for precise dosing of a difficult drug for Asian patients.



FINDING BETTER WAYS TO TREAT STROKE.

What are the new avenues, methods and drugs that can be mustered to treat stroke? This is the question that confronts **Professor Peter Wong** and members of the NUHS Stroke Research Group.

Working with a grant from the National Research Foundation, the group aims to better understand the mechanism of stroke, i.e. how the illness wreaks its havoc amongst its victims. The group also wants to improve diagnostic and prognostic methods, patient care and treatment, including the use of cell therapy. In the struggle against a disease that at present offers little, if any, effective treatment, the efforts of the NUHS Stroke Research Group are noteworthy for the hope that they hold forth.



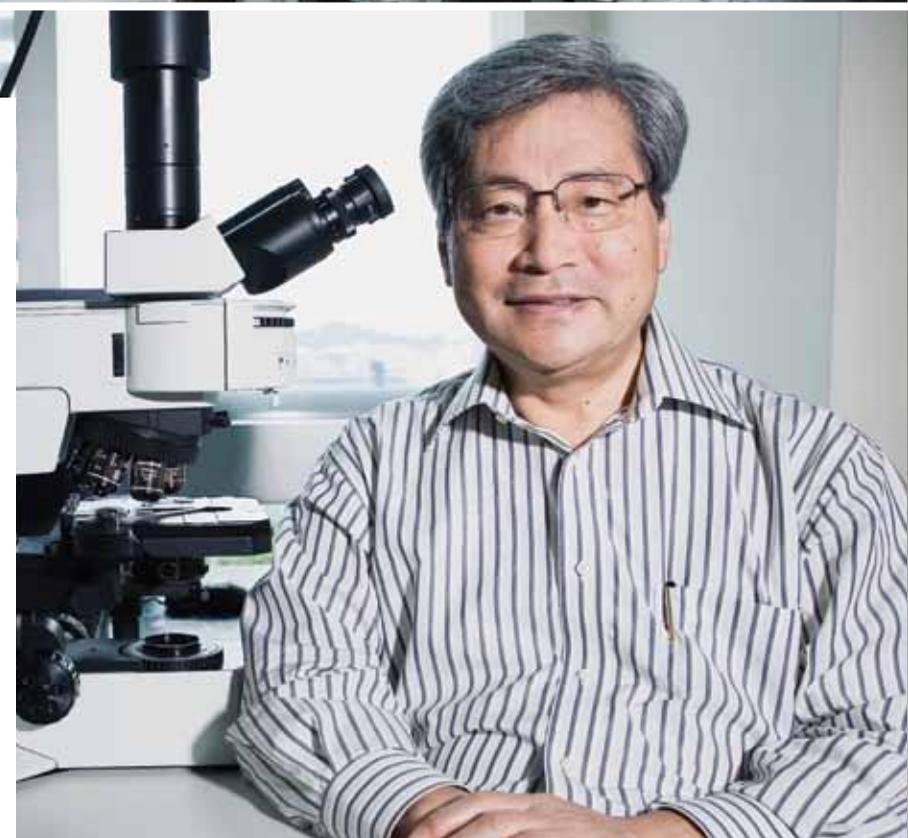
A GATEKEEPER THAT SAVES LIVES.

Cancer, to many Singaporeans, is more than a word. It's a drastic change to life as they know it. To many others, it's also a death sentence. The solution is early detection and better therapies. Happily, this means better survival rates.

NUHS and NUS researchers have discovered RUNX3, a gatekeeper gene that plays a major role in preventing the onset of colon cancer – a crucial step to developing both an early diagnostic test as well as a therapeutic target.

In addition, the investigators also showed that RUNX3 plays a key role in breast cancer and bladder cancer, among others.

"My team and I have been working on our research for the past six years and we are extremely excited about how our research findings can be translated into practical clinical applications to help patients suffering from bladder, breast, colon and lung cancers," said lead researcher **Professor Yoshiaki Ito**, the Yong Loo Lin Professor in Medical Oncology.



EYEBALLING A LEADING CAUSE OF BLINDNESS.

Few things dim the light in a person's soul more than blindness. In Singapore, glaucoma is the leading cause of irreversible blindness, with Primary Angle Closure Glaucoma causing the greatest damage, especially in Chinese and Indians.

But a research programme led by ophthalmologist **Professor Donald Tan**, Medical Director of the Singapore National Eye Centre and a professor in the Department of Ophthalmology at the NUS Yong Loo Lin School of Medicine offers hope. Together with Associate Professor Aung Tin and a team of researchers, Prof Tan is tackling the two major causes of blindness globally – glaucoma and corneal disorders.

They aim to develop novel anti-scarring or wound-healing treatments, as well as better and safer alternatives in new drug approaches, leading to better outcomes in corneal and glaucoma surgery and reduced incidence of blindness.



BEYOND BORDERS.

He is based in Singapore, but **Associate Professor Markus Wenk's** research transcends geographical, cultural and disciplinary boundaries. He collaborates extensively with scientists from diverse fields in leading laboratories worldwide.

Based at the NUS Yong Loo Lin School of Medicine's Department of Biochemistry, A/Prof Wenk's research interests are the structure, function and metabolism of membrane lipids as well as applications for lipid analyses. He has achieved several research breakthroughs, including conceiving an innovative tool for identifying lipid-based biomarkers, for which a patent was filed and applicable to many diseases implicated with aberrant lipid metabolism.



BETTER DOCTORS WILL COME FROM THE BEST TEACHERS.

How are our medical, dental and nursing students taught? From whom are they getting the knowledge to become better? In no particular order, the NUHS pays tribute to some extraordinary educators and mentors. Their work is a credit to their profession, their attitude an expression of the passion that drives them to give their best to their students and charges.



LIFELONG LEARNING AND TEACHING.

Associate Professor Lau Tang Ching is a great believer in lifelong learning, both for himself and the students that he teaches at the medical school. To the rheumatologist from the University Medicine Cluster at the NUHS, teaching and learning go hand in hand. The first requires team effort because, in his own words, "Effective teaching cannot be done by an individual. It requires a team of clinicians, scientists, researchers, teachers, educationists, administrators and so on, who share the same vision for medical education."

The other half of the equation is learning, which flows both ways. While the students have to gather knowledge, their teachers too learn as they teach.

His vision of successful teaching? "To see the medical students become doctors who find security in lifelong learning, significance in the outcomes of patients and hope in the lofty call of our profession."



SINGLE FOCUS, MULTIPLE ROLES.

The NUHS takes pride in having educators of outstanding proficiency. One of them is **Assistant Professor Siow Woei Yun**, of the NUS Yong Loo Lin School of Medicine. She takes professional responsibility for the training of medical undergraduates in the skill of surgery and her innovative approach has earned her plaudits from her students. She is also the Undergraduate Education Director (Assessment) for the Department and has chaired the Problem-Based Learning Committee for the past two years.

In addition, Assistant Professor Siow is a medical advisor to the Handicaps Welfare Association, as well as president-elect of the Asian Society of Female Urology and the Secretary and Editor for the Society for Continence (Singapore).



A HEART FOR CHILDREN.

Ask **Associate Professor Marion Aw** and she will tell you that children are very close to her heart. A love for children and a dedicated drive to better their health made her choose paediatrics as a career. A/Prof Aw is also deeply involved in the teaching, training and assessment of medical undergraduates and postgraduate paediatric trainees. As the Education Director for post-graduate paediatric trainees, she strives to impart to them the skills and knowledge to be a good paediatrician and looks out for medical students with the right attributes to be one.



CAN DO, CAN TEACH.

The writer George Bernard Shaw is reputed to have dismissed teachers as people who can't. He would have changed his view if he had met the teachers and mentors profiled here, for example **Assistant Professor Gerald Koh**. Having garnered various qualifications and awards in the course of his own education and professional training A/Prof Koh gladly shares what he knows with his students at the NUS Yong Loo Lin School of Medicine. The clinician-teacher, who trained in family medicine and community geriatrics, is determined to help his students be the best doctors they can be and perhaps even find a few ready, willing and eager like himself to return one day to teach future generations of doctors-to-be. And in the process, continue to show the world that teachers can, and do teach superbly well.



ANATOMY OF A DEDICATED TEACHER.

Apart from exotic birds, motorcycles and vintage cars, the human body fascinates **Associate Professor K Rajendran** the most. This teacher in the Department of Anatomy, NUS Yong Loo Lin School of Medicine simply loves to nurture young doctors. Realising a passion for education, he focuses his energy on developing innovative methods in the teaching of Anatomy: exploring a multimedia teaching platform, for example. His immense interest in education also led him into curriculum review and development, where he has been active for more than ten years and is currently coordinator for the medical curriculum for students in Year One. Other than research and development in multimedia for education, A/Prof Rajendran has also worked and published in the field of joint mechanics.



MODEL EDUCATOR.

Even educators look up to her, and that says everything. Presenting **Assistant Professor Joanne Uy**: model educator for the Dental Cluster, and winner of the NUS Annual Teaching Excellence Award 2007/8, a prestigious accolade for teaching excellence. This award is the culmination of a consistent approach and refreshing attitude to training dental students, who in turn cheer and salute her dedication and commitment to their training. They respond positively because, among other things, she knows exactly what she's doing. Assistant Professor Uy is dedicated to forging "thinking" students, trained and educated to the highest level of dental skills. That is the cornerstone of her teaching philosophy.



MORE THAN WORDS.

The word is, Isaac will get you talking better. But then he has a knack for making people around him perform better anyway. **Isaac Sia**, Head Of Speech Therapy at the NUH's Department of Rehabilitation Medicine, joined the Speech-Language and Hearing Association Singapore in 2002 and since 2006, has been serving as its President. Recognising the need for new professionals to receive adequate guidance, he implemented the framework for the Supervision and Mentoring of Newly Qualified Practitioners in Speech and Language Therapy, requiring all new therapists to undergo structured mentoring in their early professional career.



WINNING HEARTS, MOULDING MINDS.

"Teach with a willing heart, facilitate with an open mind." That's the winning philosophy of Senior Nurse Educator **Sabrina Koh**, a promising young nurse leader who joined the NUH in 2007. Her roles include providing training to the nurses in the areas of Critical Care and Cardiac Care, coordinating and training nurses under the Life Support Training Programmes, as well as overseeing the Rapid Escalation Criteria clinical simulation training programme and helping to establish the Mrs Lee Kong Chian Critical Care Nursing Simulation Laboratory.

But while she's got a head for teaching, Sabrina's heart lies with nursing. "Professional satisfaction comes from seeing my students apply what they have learned. But the greatest reward for me is seeing my patients get well."



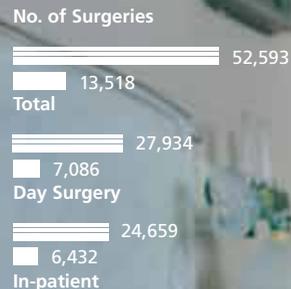
ULTIMATELY, WE ARE HERE TO DELIVER BETTER CLINICAL CARE.

At the NUHS, we aim to bring the best of healthcare to Singaporeans. A major way to achieve this is to put the fruits of research into practical clinical solutions, for the benefit of patients. The National University Hospital is doing just that.



YR2008 (Jan 08 – Dec 08)
 YR2009 (Jan 09 – Mar 09)

SURGICAL PROCEDURES



EMERGENCY DEPARTMENT



The NUH, a member of the NUHS, is a tertiary specialist hospital providing advanced medical care and services. Equipped with state-of-the-art facilities and well-trained staff, the NUH is a major referral centre that handles a wide range of medical and dental specialties. It is the principal teaching hospital of the NUS Yong Loo Lin School of Medicine and the NUS Faculty of Dentistry.

Based on its substantive expertise, the NUH was chosen by the Ministry of Health to develop two new national specialist centres – the National University Heart Centre, Singapore (NUHCS) and the National University Cancer Institute, Singapore (NCIS) to meet the growing needs for heart and cancer treatments respectively.



Because heart disease affects other bodily functions, patients at the Centre receive integrated care from multi-disciplinary teams. The NUHCS brings affairs of the heart together under one roof, with the combined

“Every case that comes into the Emergency Medicine Department is different and each one presents a fresh challenge. We work as a team to treat and care for our patients. It certainly keeps us on our toes as we do our best for them.”

Dr Malcolm Mahadevan, Senior Consultant, Emergency Medicine Department, NUH
(facing page)

capabilities of Cardiology, Cardiothoracic and Vascular Surgery to better serve the growing number of heart patients. A key centre for complex cardiovascular diseases, its core clinical programmes include heart failure, congenital heart disease, acute coronary syndrome and vascular disease.

The Centre’s professionals include heart failure physicians, case managers, advanced practice nurses, dietitians, medical social workers, pharmacists, physiotherapists and occupational therapists.



The staff at the Institute have one thing in mind – to do their best to help their patients survive and cope with their illnesses. NCIS offers a broad spectrum of cancer care and management, covering paediatric and adult cancers. The Institute has expertise in prevention, screening, diagnosis, treatment, rehabilitation, and palliative care and takes a multi-disciplinary approach to develop a comprehensive and personalised plan for each cancer patient and his or her family. With several award-winning clinician-scientists and clinician-investigators on staff and an international reputation in translational research and clinical trials, NCIS provides patients with access to promising breakthroughs in cancer diagnostics, technology and therapies.

Public education and awareness of cancer helps in early detection of the disease and this aspect is done through a Cancer Genetic Clinic as well as prevention and screening services to reduce cancer mortality and to diagnose the disease at its most treatable stage.

AT THE NUH, MEDICAL TREATMENT FEATURES AND REFLECTS THE KNOWLEDGE AND UNDERSTANDING DERIVED FROM RESEARCH DONE ON THE NUHS CAMPUS.

The two national specialist centres, the clinical clusters and departments – all tap on the NUHS’ wider clinical, research and educational expertise to offer patients cutting-edge healthcare.

Clinical Clusters:
University Children’s Medical Institute (UCMI)

Kids with acute and chronic childhood illnesses receive special attention at the UCMI. The Institute is a tertiary paediatric facility that provides comprehensive, specialised medical and

YR2008 (Jan 08 – Dec 08)
YR2009 (Jan 09 – Mar 09)

NO. OF PATIENT-DAYS

279,703

71,541
Total

13,270
3,296
ISO Beds

20,381
4,953
High Dependency Beds

14,053
3,721
ICU

113,626
30,819
8-Beds

66,392
15,803
6-Beds

23,229
5,223
4-Beds

22,253
5,807
1 or 2-Beds

6,499
1,919
Other Beds

“Working as a physiotherapist in NUHS is interesting and rewarding. We have many opportunities to learn and apply new skills as well as start new services, which ultimately improve our patients’ well-being.”

Ms Ng Tze Siong, Principal Physiotherapist,
Rehabilitation Medicine Department, NUH



surgical services for newborns, children and adolescents. Its services include a 24-hour Children’s Emergency, General & Ambulatory Paediatrics, Paediatric Intensive Care, Cardiology, Neurology and Developmental Paediatrics, Endocrinology & Diabetes, Allergy, Immunology & Rheumatology, Genetics, Metabolic Diseases, Oncology, Gastroenterology, Nephrology and Organ Transplantation, to name a few.

University Medicine Cluster (UMC)

This is grown-up medicine at its best. The UMC aims to achieve excellent clinical outcomes while continuing its mission of serving the public’s healthcare needs. The UMC team is dedicated to providing a comprehensive range of services, while concurrently actively engaged in research. This is done through fostering collaboration and synergies between staff and scientists as well as clinicians from across Singapore with a focus on common diseases.

University Surgical Cluster (USC)

The push for surgical excellence drives the USC, which is home to a group of highly specialised surgeons and staff. The Centre is a one-stop hub for all comprehensive surgical treatments. It is also where research and training are on-going endeavours, all towards one end – to find even better and more ways to help patients recover quickly and safely.

University Orthopaedics, Hand & Reconstructive Microsurgery Cluster (UOHC)

The bare bones truth about the UOHC is that they are Singapore’s first Orthopaedic Department. Since 1952, the team has been serving the needs of our population in the musculoskeletal systems of children and adults. Today, the team is a tertiary level referral centre serving regional and global needs, taking care of spinal, upper and lower limb disorders and deformities, hand and adult reconstructive surgery for osteoarthritis and osteoporosis, sports and trauma. Throughout the years, the Department has gained recognition as an international centre for graduate education and training. It has also built a reputation for quality research, especially in tissue engineering, spinal surgery, adult reconstruction and microvascular and hand surgery.

**Specialist Clinical Departments:
Emergency Medicine Department
(A&E and Children’s Emergency)**

Fast medicine may not be a bad way of describing the work of the emergency team at NUH. These are medicine’s frontline troops, ready and available 24/7, 365 days a year.

Whether it’s a road accident, an industrial disaster, a civil emergency, H1N1 or a domestic incident, the doctors and nurses are there to attend to patients quickly and calmly.

Adult Emergency

For emergency care requiring specialist attention, the 24-hour Emergency Medicine Department at the NUH is always on standby. Treatment and care services include Heart Attack, Stroke, Asthma/Chronic Obstructive Lung Diseases, Trauma, Tertiary Emergency Medicine Conditions, Extended Diagnostic Treatment Unit (Observational Unit).

Children’s Emergency

Children receive specialised acute care in a caring and friendly environment at the Children’s Emergency Service, which caters to little ones suffering from trauma, medical and surgical conditions. This service is an important part of the University Children’s Medical Institute’s mission to provide seamless quality care to our young patients.

Department of Anaesthesia

One could say this is one team that delivers a knockout performance, from general and regional anaesthesia for all surgical specialities, to anaesthetic care for critically ill patients in the surgical and cardiothoracic intensive care units, acute post-operative pain relief service, as well as pain management clinics for chronic non-malignant pain and cancer pain, among others.

Department of Diagnostic Imaging

This may not be the place for Kodak moments, but the Department is the place to capture – in living colour if need be – images that help doctors find out what goes on anywhere in a patient’s body, through the use of a sophisticated array of imaging and detection equipment that would intrigue the keenest computer and photography buffs. By providing various imaging services, which include breast imaging, 3D and whole body imaging, or ultrasound, vascular imaging, angiography, bone mass densitometry, and computed tomography, the Department makes sure doctors are never left in the dark about their patients’ ailments.

Department of Laboratory Medicine

Laboratory medicine is the art and science of looking at things up close, as well as conducting testing and analysis to gain a better understanding of infectious diseases, through methods such as qualitative and quantitative molecular tests on organisms. The science bits are in the core laboratory, which has a fully automated line system, comprising sample manager and a centrifuge/decapper attached by sophisticated tracking and robotics to automated analytical modules for chemistry, haematology, immunoassay and coagulation testing. Its range of services for tests, tools and evaluations

includes those for Clinical Chemistry, Haematology and Microbiology. The artistry comes in through the dedicated team of men and women who bring their genius and talent to the task at hand.

Department of Obstetrics & Gynaecology

In medicine, it is often said that “the Baby Department” is the happiest place in a hospital. But women are also very much in focus here for the O&G team, which provides a comprehensive range of healthcare services for female patients – from conception to the delivery of their babies. In addition, its oncology services are expanding into areas like ovarian cancer screening and molecular bases for treatment of female malignancies.

Department of Ophthalmology

Of the five senses, perhaps sight is to be the most treasured. This is where a team of skilled and experienced eye surgeons aim to provide excellent and cost-effective care and services including Cataract, Glaucoma, LASIK, Medical and Surgical Retina Service, Ophthalmic Plastic and Reconstructive, Cornea, Neuro-Ophthalmology, Paediatric Ophthalmology, and Ocular Inflammation and Immunology.

Department of Otolaryngology (ENT) – Head & Neck Surgery

To hear, speak, smell, taste, breathe – we take these abilities for granted. Not so the patients, their doctors and nurses at the ENT Department. The specialists here provide a comprehensive range of diagnostic Ear, Nose, Throat and Head & Neck services for both adults and children. In addition, a team of qualified audiologists, auditory verbal therapists, speech and language therapists and nurses also provides care and support for patients.

Department of Pathology

A proud historical legacy underwrites the work of the Department of Pathology, which had its early beginnings with its headquarters at the then General Hospital in Singapore. Its work then included routine clinical pathology, much of which in the early days consisted mainly of blood films for malarial parasites. But things have come a long way. Today, the department provides comprehensive diagnostic services such as histopathology and cytopathology to the National University Hospital.

AS THE NUHS DRIVES TOWARDS CLINICAL EXCELLENCE, THE NUH IS HELPING TO LEAD THE CHARGE.

The evidence lies in initiatives undertaken by the Clinical, Allied Health and Nursing Departments to improve patient care.

For instance, the search for lumps or growths, also called polyps, has become less traumatic for patients. The Department of Diagnostic Imaging has introduced a new and non-invasive procedure called *CT/Virtual Colonography* for the detection of polyps. A small rectal catheter is placed in the rectum and air is pumped in to ensure adequate expansion of the colon before the CT scan is performed. Using advanced technologies such as 3D simulation and Fly Through, the colonic mucosa obtained from the colonography can be evaluated to detect the presence of polyps.

Another pace setting initiative: the Department of Obstetrics & Gynaecology at the NUH conducted the first robotic surgery for gynaecological cancer in South-East Asia and Singapore. The new surgical procedure offers an option that is less painful, results in less scarring, and allows patients to get back on their feet faster while also being effective in removing cancerous growths.

The Department then worked with the Department of Psychological Medicine to start the NUH Women’s Emotional Health Service programme, which provides personalised and comprehensive emotional care for gynaecological-cancer and pregnant patients. While the human touch is irreplaceable in patient care, technology is never far behind.

The NUH is the first hospital in the Asia-Pacific region to implement an end-to-end or close-loop inpatient medication management system. Leveraging on automation, an intelligent system ensures that the right medication is given to the right patient, at the right time, in the right dosage.

The system begins with the prescribing, preparing, dispensing, and ends with the serving of medication to the patients.

With more time on hand, nurses can now focus more on direct patient care, and pharmacists on monitoring and counselling of patients and performing medication reconciliation and related functions.

While the medical woes of patients are addressed by their doctors and nurses, the medical social work professionals at the Department of Medical Social Work attend to patients’ psycho-emotional, social-economic issues. Its Enhanced Case Management and Medifund Approval System, introduced in February 2009, is the first

YR2008 (Jan 08 – Dec 08)
YR2009 (Jan 09 – Mar 09)

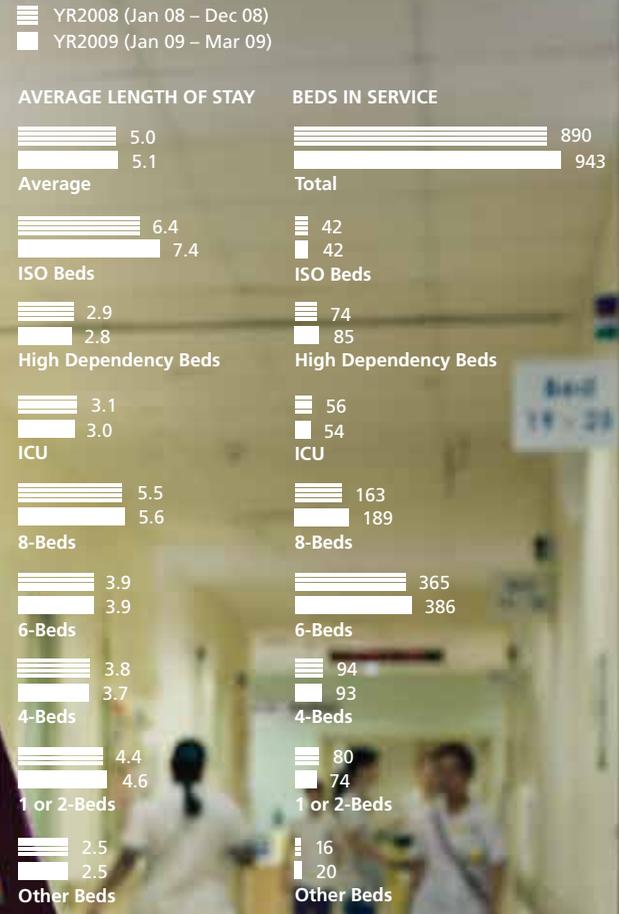
SPECIALIST OUTPATIENT CLINICS

572,954
147,871
Attendances



“My team and I are committed to delivering innovative, personalised, cost-effective and safe clinical pharmacy services. Great joy and satisfaction come from knowing that we have made a positive impact on the lives of our patients.”

Ms Lim Siew Woon,
Principal Clinical Pharmacist, NUH



“I enjoy the meaningful work of a Palliative Care Advanced Practice Nurse. I work closely with doctors, nurses, and allied health professionals in providing competent and compassionate care to patients with life-limiting illnesses.”

Ms Catherine Teo, Advanced Practice Nurse, NUH

end-to-end Medical Social Work system in Singapore. Simply put, the new system allows for a faster response time to patients and boosts productivity, leading to reduced costs and wastage. One of its key functions is the automated Medifund function, which takes over the heavy paper work of more than \$5 million of applications, enabling the Medical Social Work team to focus on counselling and therapeutic work for patients and their families.

AT NUH, COMPETENT NURSING IS THE BACKBONE OF QUALITY CLINICAL CARE.

Because we want to provide the best standard of healthcare to our patients, we need our nurses to be trained to the highest professional skill and knowledge levels.

In nursing, the Advanced Practice Nurse (APN) is the pinnacle of the clinical nursing track. APNs are registered nurses who have acquired expert knowledge in subject areas that require complex decision-making skills and clinical competencies for extended practice through formal training. Nurses with excellent clinical leadership potential with a Masters in Nursing can be groomed to become APNs, but only after rigorous clinical preparation, mentorship and fulfilling certain practice and professional requirements.

The certified APNs in the NUH provide care in a variety of healthcare settings including Coronary Care Unit, Psychiatry, Palliative Care and Haematology-Oncology.

The APNs in the respective specialties have led to improved patient outcomes, such as reduced waiting time to be seen at outpatient clinics and a better patient satisfaction index.

DOING IT BETTER THE NUHS WAY: CONTINUOUSLY IMPROVING MEDICAL CARE DELIVERY.

The NUHS Way was introduced in 2007 to support the development of the NUH into a world-class model for patient care delivery and clinical excellence. For that to happen, the NUH needs to continuously improve the way the hospital functions. To that end, several Rapid Improvement Events resulting in safer, faster, less costly yet superior ways of working were completed by clinical, nursing, allied health and operations staff between January 2008 and March 2009.

Some examples include:

A Boon for Cancer Patients

In the past, cancer patients endured long waiting periods for blood-taking and transportation of blood samples, which were required before the initiation of their chemotherapy treatment. As a result of these delays, staff were also required to stay back late frequently to attend to patients' chemotherapy treatments.

In November 2008, a cross-functional team including nurses, patient service associates and operations staff came together to find a solution. The team successfully reduced the time between patient registration to obtaining blood test results from two hours to one. This reduction in pre-chemotherapy delays was combined with a new staggered scheduling method, thus reducing patients' waiting time and reducing staff working beyond normal operating hours to less than once per week.

Timely Cardiac Investigations

In the past, patients arriving at the Emergency Medicine Department (EMD) with chest pain and angina pectoris were either admitted as inpatients for cardiac stress tests, or given appointments at the outpatient clinic for later dates, where the attending cardiologists would usually order cardiac stress tests.

All that changed after June 2008, with a one-stop service centre providing upfront stress tests and EMD doctors empowered to order such tests using a standard protocol.

The result? A reduction of 33% in inpatient admissions from EMD for chest pain and angina pectoris, saving approximately 670 bed days per year. Weekly visits to the specialist outpatient clinic were also reduced by 38%, saving approximately 624 visits per year. Most importantly, patients benefit from a cost-effective, timely diagnosis of whether their chest pains are cardiac-related, thus alleviating their concerns.

Race Against Time

Our Emergency Medicine Department (EMD) now operates much like a F1 race team. Like an F1 car that races against time, the EMD is constantly striving to shorten a patient's "journey" from his arrival to his admission.

The NUH EMD receives about 150 patients everyday who arrive by ambulance, and do not exhibit critical conditions. The biggest challenge faced by EMD is the bottleneck queue that quickly causes overcrowding.

Stationing a "pit stop crew" of doctors and nurses at the EMD where patients can be attended to immediately thus enables a smoother and quicker patient flow. An immediate quick assessment is followed by preliminary investigations such as blood tests and X-rays, all of which help to speed up care. The result – consultation waiting time was reduced by almost half.

ANATOMY OF A SMILE.

University Dental Cluster

There's a lot that goes on behind a patient's smile. While nature equips us with a full set of teeth and a jaw to hold them, it takes a lifetime of diligent dental care to get the teeth and jaws to stay healthy and intact.

So while our patients do the best they can, the dentists and Dental Surgery Assistants at University Dental Cluster (comprising the Dental Centre and the NUS Faculty of Dentistry) are the healthcare professionals who ensure they keep their grins bright and toothy for as long as their teeth are needed.

They do this in an ultra-modern dental facility that is fully equipped and ergonomically designed for dental surgeries. Highly motivated and qualified professional staff provide general, specialised as well as emergency dental care.

In addition to basic dental procedures, patients who require more complex and tertiary level care can be referred to a full complement of dental specialists ranging from Paediatric Dentistry, Orthodontics, Endodontics, Periodontics, Prosthodontics to Oral & Maxillofacial Surgery.

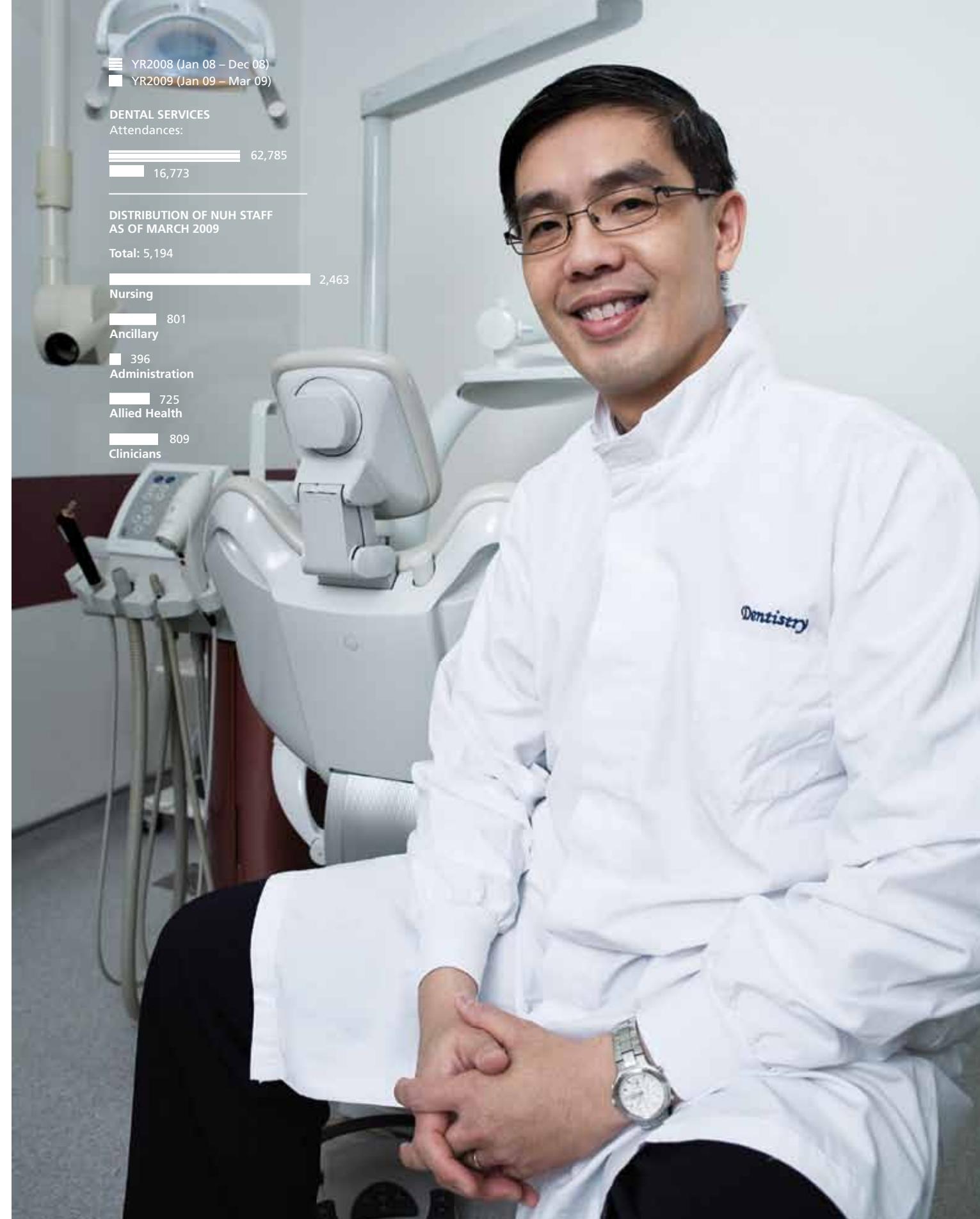
In other words, patients benefit from a multi-disciplinary consultation in one sitting. For complex cases, the Special Clinics of the Dental Centre include the Dental Oral Cancer Clinic and the Temporomandibular Disorders and Maxillofacial Prosthetics Clinic.

In addition, three departments – Oral & Maxillofacial Surgery, Preventive Dentistry and Restorative Dentistry as well as the Division of Graduate Dental Studies provide clinical support for the Dental Centre and also conduct Research and Education. The latter oversees undergraduate and postgraduate programmes leading to degrees in Bachelor of Dental Surgery, Master of Dental Surgery, Master of Science as well as a PhD by research and a continuing education curriculum for dental professionals, which includes postgraduate diploma programmes within the Division of Graduate Studies.

And that's what's needed to keep our patients smiling.

“By integrating techniques from engineering, mathematics and computer science, we can build a 3D model of a patient’s facial and oral tissues to aid dental clinicians in decision-making, learning and treatment. Patients will be able to make better and informed choices through treatment discussions using these highly visual models. This is a tangible example of how the partnership of engineering sciences and clinical care enhances the clinician-patient relationship.”

Associate Professor Kelvin Foong,
Senior Consultant, University Dental Cluster,
NUH, NUHS (facing page)





“The school fees were a challenge. For most of my years in medical school, I decided to give tuition as well, so that at least I didn’t have to take pocket money from my parents. The Toh Kian Chui Bursary helped to relieve some of the financial burden of my medical school fees.”

Dr Pang Ningyi, a recent graduate of the NUS Yong Loo Lin School of Medicine

OUR DONORS MAKE IT POSSIBLE FOR US TO MAKE THINGS BETTER.

To the organisations and individuals who share our vision, we are much obliged. We fully understand the importance of wisely using every dollar, whether in clinical care, research or education.

ENHANCING CLINICAL CARE

At the NUHS, programmes have been established that financially help the needy, who suffer from a range of diseases including heart diseases, cancer, or other life-threatening illnesses. The donations made to these programmes subsidise their surgery costs, pay for transplants and offset the cost of expensive drugs.

The Patientcare Charity Fund plays an integral part in providing financial assistance to patients who need it the most. From January 2008 to March 2009, we were able to help close to 300 needy patients with financial assistance in excess of S\$885,000.

Take the example of Mr and Mrs Lim*, an elderly couple in their 70s who are married with no children. Mrs Lim is a patient at NUH; Mr Lim is retired. They receive S\$250 per month from the Southwest Community Development Council. Both Mr and Mrs Lim are under the Council’s Medical Fee Assistance Card (MFAC) and they are able to seek standard medical treatment and collect standard medication without charge. However, Mrs Lim needs Forteo, a non-formulary costly drug not covered under MFAC. Fortunately, the Endowment Fund helps to defray the cost of Forteo.

**Names have been changed to protect the patient’s confidentiality.*

EMPOWERING RESEARCH

Donations towards the NUHS’ research facilities allow researchers to translate their research findings into treatments and applications.

At the NUHS, more than 110 research studies have been made possible through funding in the last year.

An example of breakthrough research is the work led by Professor Yoshiaki Ito, from the Department of Medicine, NUS Yong Loo Lin School of Medicine. He is also the Yong Loo Lin Professor in Medical Oncology and the Deputy Director of the Cancer Science Institute of Singapore. Professor Ito and his research team discovered RUNX3, a gatekeeper gene which prevents the uncontrolled growth of cells leading to colorectal cancers, thus opening a new front in cancer research.

ENRICHING EDUCATION

Donations help to fund several levels of healthcare training, from endowed professorships, bursaries, scholarships, and medals and prizes at the NUS Yong Loo Lin School of Medicine (including the Alice Lee Centre for Nursing Studies) and the NUS Faculty of Dentistry to sponsorship of healthcare staff to attend conferences.

At the NUHS, we believe that cost should not be an obstacle to deserving students pursuing a good education. For example, for the past year, bursaries and scholarships have lightened the financial burden for 62 medical undergraduates. More than S\$700,000 was disbursed to help medical students. In addition, S\$45,900 has been distributed to 30 deserving NUS Faculty of Dentistry students through bursaries to ease the financial burden of their school fees.

A BETTER SYSTEM.

“Visionary leadership saw to the creation of the NUHS. A team unified by common purpose to lead the way, backed by talented staff committed to bringing the best of clinical care, teaching and research to Singaporeans is what the country’s first academic medical centre is all about.”

It’s been a year and a half since the NUH, the NUS Yong Loo Lin School of Medicine and the NUS Faculty of Dentistry were brought together to form Singapore’s first academic medical centre. The Ministers for Health and Education, the Permanent Secretary for Health and the leadership at the National University of Singapore made this farsighted decision.

We have made good progress and our staff are gelling well as a team. It is progress that would not have been possible without a shared vision by the leadership team at the NUHS. We can expect to see more significant progress and results when additional space for patient care, education and research becomes available in the three new buildings under construction, as well as a fourth that is currently being designed.

In the field of medical research, there have been encouraging results and some of these are highlighted in this report.

This inaugural yearbook presents to you some of our award winners, vital contributions by individuals, and breakthroughs made at the NUHS. Our brief history has already yielded research discoveries, introduced better clinical care practices and lined up some of the best teachers and mentors that medical, dental and nursing students can learn from, or model themselves after. These successes auger well as we continue with our mission to bring the best of medicine to Singaporeans.

LIM YONG WAH
Chairman, NUHS Board

THE BOARD.



Mr Roy Quek
Deputy Secretary
(Health Policy),
Ministry of Health

Prof Edward Holmes
Executive Chairman,
National Medical
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/Tan Tock Seng
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& Managing Director,
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Chairman, Pteris Global Ltd

Prof Tan Chorh Chuan,
President,
National University
of Singapore

Ms Yong Ying-I
Permanent Secretary
(Health), Ministry
of Health

A BETTER FUTURE.

At the National University Health System, our fundamental aim is to bring the very best of healthcare to Singaporeans and residents. We do this by harvesting the fruits of our research efforts, conducted by respected clinician-scientists, and turning these discoveries into useful, beneficial treatments for our patients. At the same time, we are also training and moulding future generations of Singapore's doctors, dentists and nurses and preparing them for the healthcare challenges of tomorrow.

In the area of medical research, encouraging breakthroughs have already occurred.

From the point of immediate impact, NUHS researchers led by Adjunct Associate Professor Goh Boon Cher have developed a formula to calculate precisely how much blood-thinning medication should be given to stroke patients based on his pivotal finding about genes.

We all know that the best solution for cancer is early detection. Associate Professor Yeoh Khay Guan and his team from the Singapore Gastric Cancer Consortium was awarded the inaugural Translational and Clinical Research Flagship grant by the National Medical Research Council in July 2007 to find new and more effective ways of stopping the disease, which is the fifth most common cancer in Singapore men and accounting for 250 deaths every year. Stomach cancer is usually picked up at a late stage and existing treatments are far from satisfactory.

One of the key projects in this programme is the clinical trial focusing on early diagnosis through screening. Since the start of the grant in 2007, 2,300 people have been screened and 10 people were found with silent cancers so early that they would not have been detected on routine care. These patients would not have been diagnosed and effectively cured, if not for this research programme. An average of one early cancer was found per 160 tests.

Next, consider the exciting discovery of the RUNX3 gene by Professor Yoshiaki Ito at the NUS Yong Loo Lin School of Medicine. He and his team have determined that RUNX3 is a gatekeeper gene that determines whether or not colorectal cancer begins in the human body.

Then there are examples of research initiatives in other fields: Associate Professor Chong Yap Seng and his multi-

disciplinary, multi-national team of physicians and researchers are investigating the growing epidemic of metabolic disease in a unique fashion, i.e. diabetes in Singapore, with the ultimate objective of finding a solution.

Yet others from the NUS Yong Loo Lin School of Medicine have found ways to generate pure insulin producing cells which may prove the key to not just treating diabetes but potentially reversing the effect of the disease.

These are some of the pivotal and paradigm-changing work that our talented and committed medical and scientific colleagues have embarked upon. It is work that is dedicated to improving the quality of life of Singaporeans.

Good news also emanated from the Clinical Care and Education spheres at NUHS; important awards and achievements have been secured.

In 2008 and 2009, half of the National Medical Excellence Awards went to clinicians and researchers at the NUHS. The National Medical Excellence Awards is the most prestigious award in medicine – the medical equivalent of the Oscars.

A substantial proportion of National Healthcare Group grants were awarded to the National University Hospital in 2008, namely the Small Innovative Grant and the Researcher-Investor-Scientist-Enabler Grant.

Our nurses have also done us proud, with four of them winning Healthcare Humanity awards for their courage, dedication, and compassion.

Three of our outstanding doctors won the coveted Clinician-Scientist award, which enables them to carry out internationally competitive translational and clinical research.

Here, in these few examples describing the work of our dedicated healthcare professionals, is a snapshot of the NUHS. We believe that committed people, convicted by the power of ideas and given the space to bring them to life, can engender significant and positive improvements to the quality of healthcare. It has been an exciting year and a half since our inception: we look forward to shaping and bringing the best of healthcare to Singaporeans.



ASSOCIATE PROFESSOR BENJAMIN ONG
CHIEF EXECUTIVE, NUHS



“We believe that committed people, convicted by the power of ideas and given the space to bring them to life, can engender significant and positive improvements to the quality of healthcare.”

Associate Professor Benjamin Ong, Chief Executive

THE MANAGEMENT TEAM.

From left, seated:

A medical oncologist-haematologist, **Professor John Eu-Li Wong** serves as the Deputy Chief Executive of the NUHS, Dean of the NUS Yong Loo Lin School of Medicine and Director of the National University Cancer Institute, Singapore. He jointly founded the Cancer Therapeutics Research Group, a multi-national consortium of nine institutions. Prof Wong is a member of the International Education Council for Molecular Targeted Therapy for Cancer, has served on the American Society of Clinical Oncology International Affairs Committee and has been a faculty member of the International Oncology Foundation Advisory Board. Prof Wong's research interests lie in the development of new drugs, and new treatment strategies, as well as the differences between Asian and Caucasian cancers.

The Chief Executive of the NUHS, **Associate Professor Benjamin Ong** has practiced as a senior neurologist for more than 19 years and has been an academic staff member of the NUS since 1986. He has held portfolios as Chair of Medicine and the Chairman of the Medical Board at the NUS/NUH. His research efforts have been in neuroepidemiology and neuroimmunology, having done work on headache disorders, demyelinating diseases and myasthenia. He has led work on multiple sclerosis in Asia by collaborating with his peers from the Asia-Pacific region. A firm believer in technology, he has actively led the application of state-of-the-art technology for process improvement in patient care delivery at the NUH since 1998. A/Prof Ong is also a strong proponent of medical education and continues to be involved in Neurology Specialist Training as well as undergraduate teaching. He continues to see patients at the Neuroscience Clinic in the NUH.

Mr Joe Sim is the CEO of the NUH. He is responsible for running the 960-bed tertiary hospital to fulfill its public sector mission in providing cost-effective and accessible care with excellent outcomes. He is also responsible for setting the strategic direction and overseeing the development of the academic mission at the NUH.

From left, standing:

As the Chairman of the Medical Board (CMB) of the NUH, **Associate Professor Aymeric Lim** is a surgeon who not only specialises in hand micro-surgery, but oversees the depth and breadth of clinical care services which the NUH provides to patients. His focus is to ensure the highest standards are maintained at all times for the hospital. A/Prof Lim's research interests include free flaps, nerve and brachial plexus surgery

as well as tendon transfers. His research on the intra-muscular innervation of the forearm muscles has already been proven to be beneficial to patients with nerve injuries.

For the Dean of the NUS Faculty of Dentistry, **Associate Professor Keson Tan**, teaching and research have become his passion and calling. The avid teacher's commitments include the Undergraduate Fixed Prosthodontic and Occlusion programs and he also serves as the Director of the Graduate Prosthodontic Program at NUS. Research-wise, he has a natural inclination for dental implant biomechanics and IT applications in dentistry. A/Prof Tan is also the Chair of the University Dental Cluster.



A GOOD YEAR.

2008:

FEBRUARY

FORMATION OF THE NUHS – The Ministry of Education and Ministry of Health announces the formation of the NUHS and appoints Professor Tan Chorh Chuan as Chief Executive. A Board is appointed to guide the strategic directions, chaired by Mr Lim Yong Wah. Members include Ms Yong Ying-I, Permanent Secretary (Health), Ministry of Health as well as members with extensive expertise in law, finance and human resource.

MARCH

NATIONAL MEDICAL EXCELLENCE AWARDS 2008

– Professor Lee Eng Hin receives the National Outstanding Clinician Mentor Award. He is the Director of Division of Graduate Medical Studies at NUS Yong Loo Lin School of Medicine and a Senior Consultant with the Department of Orthopaedic Surgery, University Orthopaedics, Hand & Reconstructive Microsurgery Cluster, at NUH.

Professor Yap Hui Kim, a Senior Consultant with the Department of Paediatrics, University Children's Medical Institute, NUH, wins the National Outstanding Clinician Award for her exceptional contributions to clinical work.

Professor Donald Tan from the Department of Ophthalmology at NUS Yong Loo Lin School of Medicine wins the National Outstanding Clinician Scientist Award for his work in clinical and translational medicine.

NATIONAL HEALTHCARE GROUP GRANTS

– In Financial Year 2008, the NUH achieves almost half of National Healthcare Group's Small Innovative Grant; and Researcher-Investigator-Scientist-Enabler Grant. The former is a short-term grant designed to support clinical research that answers specific, targeted research questions or to perform pilot or feasibility studies. The latter provides funding for a portion of the clinician's salary commensurating with his/her time spent in research.

LAUNCH OF VIVA-UNIVERSITY CHILDREN'S CANCER CENTRE

– The NUH's children's cancer facilities, previously located at two different wards, come under one roof at the Viva-University Children's Cancer Centre in NUH.

Equipped with facilities to better care for young cancer patients, it is also the headquarters for the St. Jude-Singapore International Outreach programme and centre for clinical and translational research work.

APRIL

CENTRE FOR TRANSLATIONAL MEDICINE – Prime Minister Lee Hsien Loong officiates the groundbreaking ceremony for this new flagship building, which will house some of the world's most talented researchers and educators to provide solutions to Asia's medical challenges. Expected to be completed in the second quarter of 2010, this Centre will stand proud at 15 storeys high and provide space for teaching, learning, training, and research. Some of the nation's key biomedical and medical education resources will be situated here, including a state of the art Clinical Imaging and Research Centre and digital media classrooms for teaching medical and nursing students.

MINISTER FOR HEALTH AWARD – The NUH's Dr Kao Shih Ling – Registrar, University Medicine Cluster – is honoured with the above mentioned award for raising the alert (and patient management) for the use of the illegal product, Power 1 Walnut.

THE WORLD DENTAL EDUCATION SOCIETY

– FDI World Dental Federation donates S\$250,000 for establishment of awards for undergraduate dental students to embark on overseas attachments.

MAY

PS21 STAR SERVICE AWARD – The NUH's Dr Low How Cheng – Associate Consultant, Department of Gastroenterology & Hepatology, University Medicine Cluster – wins the national award for consistently high standards of service excellence.

HEALTHCARE HUMANITY AWARDS

– Four NUH nurses – Senior Nurse Managers Zauyah Bte Sanif and Senior Nurse Manager Ong Hwee Sen; Nurse Clinician Tai Sook Ping; and Staff Nurse Chen Xiao Juan – receive the prized award for their courage, extraordinary dedication, selflessness and compassion.

SINGAPORE TRANSLATIONAL RESEARCH INVESTIGATOR AWARD

– Professor Daniel Tenen and Professor Wong Tien Yin from NUS Yong Loo Lin School of Medicine receive the Singapore Translational Research Investigator Awards in recognition of their outstanding qualifications in translational and clinical research.

CLINICIAN SCIENTIST AWARD

– Associate Professor Allen Yeoh Eng Juh – Senior Consultant, Department of Paediatrics, University Children's Medical Institute, the NUH and NUS Yong Loo Lin School of Medicine – wins the Clinician Scientist Award. Associate Professor Chng Wee Joo – Consultant, Department of Haematology-Oncology, National

University Cancer Institute, Singapore and Department of Medicine, NUS Yong Loo Lin School of Medicine – is given the Clinician Scientist Award. The awards enable the doctors to carry out internationally competitive translational and clinical research. Associate Professor Aung Tin from NUS Yong Loo Lin School of Medicine also receives this award.

JUNE

SWISSCO PRESENTS CASH GIFT OF S\$200,000 TO NEEDY MEDICAL STUDENTS – The cash gift will award two bursaries valued at S\$20,000 each and it is named the Swissco International Bursary.

CANCER RESEARCHER HONOURED – Professor Daniel Tenen is appointed as the inaugural Saw Swee Hock Centennial Professor in Medical Sciences. The Saw Swee Hock Centennial Professorship in Medical Sciences was made possible by a generous S\$2.6 million gift from Professor Saw Swee Hock to enable world-renowned professors to teach and conduct research at NUS Yong Loo Lin School of Medicine for two years.

MEDICAL SCIENCE EDUCATOR HONOURED – Professorial Fellow Matthew Gwee from NUS Yong Loo Lin School of Medicine is the first Asian to be elected to the International Association of Medical Science Educators Board.

OUTSTANDING PERFORMANCE – NUH Staff Nurse Chua Chue Teng is awarded MOH Gold Medal for Outstanding Performance in the Diploma in Nursing course. This course is part of the Strategic Manpower Conversion Programme, a joint initiative supported by the Singapore Workforce Development Agency and the Ministry of Health.

CRYOSURGERY GIVES HOPE TO BONE CANCER AND TUMOUR PATIENTS – Assistant Professor Saminathan Suresh Nathan (Consultant, Adult Reconstructive Surgery Division, University Orthopaedics, Hand & Reconstructive Microsurgery Cluster, NUH) performs cryosurgery using supercooled argon to freeze a tumour before cutting it out cleanly. This gives hope to bone cancer and tumour patients. There is a reduced risk of recurrence (between 30% – 50%, to 8%) and a 100% success rate for the 12 patients who underwent the procedure.

OPENING OF NEW UNIVERSITY SPINE CENTRE – This advanced clinical facility with patient-centric integrated process in place, is delivering a one-stop service to patients. It is also able to enhance patient care through the systematic tracking of clinical outcomes. With the range of ambulatory spine services under one roof, patients have convenient access to consultation and pre-surgery listing services, comprehensive spinal treatment modalities (including

interventional treatment, physiotherapy and x-ray), and post-surgery counselling.

JULY

COMMENCEMENT CEREMONY FOR CLASS OF 2008

– In 2008, the NUS Yong Loo Lin School of Medicine confers 221 Bachelor's Degrees, 220 Master of Medicine Degrees and 50 Master of Science Degrees. In addition, 120 Graduate Diplomas and 78 Doctoral Degrees (including one M.D.) are awarded. Dr Tan Chi Hsien is the Valedictorian who graduates with honours as well as six faculty medals, and gets on the Dean's List in 2004, 2005, 2007 and 2008.

The NUS Faculty of Dentistry confers 33 Bachelor's Degrees, 16 Master's Degrees and two Doctoral Degrees. In addition, six Graduate Diplomas are awarded and Dr Hu Shijia is the Valedictorian graduate with nine medals and one book prize. He was on the Dean's List in 2005, 2006 and 2007.

HUMAN RESOURCE AWARDS – The NUH walks away with two Human Resource Awards: Leading HR Practices in Health & Employee Wellness; and Leading HR Practices in Quality Work-Life.

NUH CLEARS AUDITS – They are: ISO9001:2000, ISO14001:2004, and OHSAS 18001:2007.

MANPOWER AWARDS – 53 NUH staff – 23 doctors, 18 nurses, nine health sciences professionals and three administrators – receive the NHG Health Manpower Development Plan (HMDP) Fellowship Awards 2008.

MERIT AWARD – Six NUH nurses receive Ministry of Health Nurses Day Merit Award for their dedication to the nursing profession and their patients.

SUPPORT FOR TOTAL DEFENCE – The NUH clinches the Distinguished Defence Partner Award for its support for Total Defence.

AUGUST

NUS AMERICA FOUNDATION RECEIVES A CASH GIFT OF US\$500,000 FOR NEEDY MEDICAL STUDENTS

– Named the Seybold and Suean Lin Jen Scholarship, the cash gift will award four scholarships valued at US\$12,500 each.

NUS YONG LOO LIN SCHOOL OF MEDICINE ROLLS OUT PHASE I OF ITS REVISED MEDICAL UNDERGRADUATE CURRICULUM

– The medical school embarks on a new phase of its curriculum review in 2006 with the aim of devising an outcome-focused curriculum and implemented

Phase I of this curriculum in the 2008-09 academic year. This curriculum will lay a firm foundation in the basic medical sciences while providing students with high quality clinical experiences. The curriculum content emphasizes clinical relevance of the basic sciences and early patient exposure from the beginning of the course. For the holistic development of our future doctors, four longitudinal tracks, like the Health Ethics, Law and Professionalism track, which span all five years of the medical curriculum, were also integrated into the curriculum.

NATIONAL DAY AWARDS – Five NUH staff receive the National Day Awards 2008 (one Commendation Medal and four Efficiency Medals). The awards acknowledge NUH staff for their commitment to patient care and to Singapore.

THE NUH & NATIONAL HEALTHCARE GROUP SIGN A MOU WITH ASTRAZENECA TO DEVELOP ANTI-CANCER COMPOUNDS

– The NUH and NHG sign a MOU with AstraZeneca to develop anti-cancer compounds for inoperable liver cancer. Adjunct Associate Professor Goh Boon Cher, from the Department of Haematology-Oncology, National University Cancer Institute, Singapore, is involved in the clinical testing of AstraZeneca compounds on inoperable liver cancer, 2008. This collaboration also includes a training programme placement with the Manchester Cancer Research Centre.

SEPTEMBER

A GATEKEEPER GENE – Professor Yoshiaki Ito, the Yong Loo Lin Professor in Medical Oncology, discovers a gatekeeper gene; its absence would lead to the growth and development of colon cancer.

TIE-UP WITH BAYER SCHERING PHARMA – NUS Yong Loo Lin School of Medicine and Bayer Schering Pharma will jointly embark on three translational cancer research projects in a research agreement worth S\$3.5 million.

RADIOGRAPHER'S AWARD – Two Radiation Therapists – Mary Chan, Chief Radiation Therapist and Tan Chek Wee, Senior Radiation Therapist – win the Singapore Society of Radiographers Gold Award.

HANDPICKED BY MOH – Mr Wu Tuck Seng, Senior Manager, Pharmacy Department, NUH is appointed President of the inaugural Singapore Pharmacy Council by MOH.

OCTOBER

NUHS RESEARCHER WINS S\$25 MILLION RESEARCH GRANT – Associate Professor Chong Yap Seng and his

team of international researchers are awarded a S\$25 million grant for translational and clinical research to investigate metabolic diseases in Singapore.

STATE-OF-THE-ART CENTRE FOR ADVANCED SURGICAL TRAINING OPENS AT THE NUH

– The Khoo Teck Puat Advanced Surgical Training Centre is officially opened by President SR Nathan. Made possible by a S\$7 million gift from the Estate of Tan Sri Khoo Teck Puat, the Centre offers the latest surgical equipment and provides trainee surgeons with hands-on experience in realistic operating theatre conditions, under the guidance of experienced surgeon trainers.

CANCER RESEARCH CENTRE OF EXCELLENCE AT NUS OPENS

– The Cancer Research Centre of Excellence will build new capacity for interdisciplinary and collaborative approaches to address the most challenging and significant research problems in cancer, especially those afflicting Asian populations.

PRESTIGIOUS APPOINTMENT – Mr Chew Lip Teck, Senior Radiation Physicist, Radiotherapy Centre, NUH, is appointed President of the Society of Medical Physicists.

WINNING POSTERS – The NUH's posters win four awards (One second runner-up and four merit prizes) at the Fifth Ministry of Health Clinical Quality Improvement Poster Competition.

FIRST ROBOTIC SURGERY FOR GYNAECOLOGICAL CANCER IN SE ASIA AND SINGAPORE

– The Department of Obstetrics & Gynaecology, NUH, conducts the first robotic surgery for gynaecological cancer in South East Asia and Singapore. The new surgical option is less painful, results in lesser scarring, allows patients to get back on their feet faster while being effective in removing cancer. The NUH team comprises Dr Jeffrey Low, Prof Ilancheran (both Senior Consultants), Dr Joseph Ng (Consultant), Dr Fong Yoke Fai (Consultant) and Dr Suresh Nair (Visiting Consultant).

NUH DOCTOR DEVELOPS SCORECARD TO PREDICT ASIANS' RISK OF COLORECTAL CANCER

– Associate Professor Yeoh Khay Guan (Senior Consultant, Department of Gastroenterology and Hepatology, University Medicine Cluster, NUH) leads a project which develops a scorecard to help predict Asians' risk for colorectal cancer, the most common cancer in Singapore. It is the first study to calculate colorectal cancer risk among Asians.

NOVEMBER

RESEARCH BREAKTHROUGHS – Dr Lim Sai Kiang and Dr Li Guodong, both research associate professors at NUS Yong Loo Lin School of Medicine, score a breakthrough in developing an unlimited number of pure insulin-producing cells.

BETTER CLINICAL PROCESS – NUH Teams win Awards (Best Sustainability Award 2008 & Best Project 2008) at Sixth Clinical Practice Improvement Programme Convention and Graduation Ceremony. The teams are rewarded for improving clinical processes.

SCIENTIFIC CONGRESS – A glittering night for 12 NUH staff at the National Healthcare Group Annual Scientific Congress. The accolades include NHG Doctor Award, NHG Young Investigator Awards, Best Oral, Best posters, and others.

EXCELLENT SERVICE AWARDS – 665 NUH staff receive the Excellent Service Awards, which recognise individuals or organisations who have delivered outstanding service. This award serves as a blueprint for developing service champions.

OUTSTANDING CONTRIBUTION – The NUH's Dr Sophia Ang (Vice Chairman, Medical Board and Senior Consultant, Anaesthesia) is honoured with the National Healthcare Group Outstanding Citizenship Award for helping National Healthcare Group achieve its strategic organisational goals to improve healthcare delivery.

NURSING AWARDS – Principal Assistant Nurse Sumaryuni Binte Ismail (Ward 96) and Senior Assistant Nurse Salmah Binte Subtu (Ward 44) receive the Merit Awards given during the 3rd Tan Chin Tuan Nursing Award for Enrolled Nurses Presentation Ceremony. They receive the award from Minister for Health, Mr Khaw Boon Wan. Founded by the D.S. Lee Foundation, this award aims to recognise promising and talented enrolled nurses dedicated to advancing the nursing profession locally.

DECEMBER

THE NATIONAL UNIVERSITY HEART CENTRE, SINGAPORE

– The NUHS sets up the National University Heart Centre, Singapore, which brings together cardiac specialists and experts from a multitude of medical and surgical disciplines.

CHANGE OF LEADERSHIP AT THE NUHS – Professor Tan Chorh Chuan steps down as NUHS Chief Executive as he assumes the appointment of NUS President. Associate Professor Benjamin Ong succeeds Professor Tan as NUHS Chief Executive, while Professor John Wong, Dean of NUS Yong Loo Lin School of Medicine, takes on the role of Deputy Chief Executive.

NEW NUH CHAIRMAN, MEDICAL BOARD – Associate Professor Aymeric Lim, Head and Senior Consultant, Department of Hand and Reconstructive Microsurgery, University Orthopaedics, Hand & Reconstructive Microsurgery Cluster, succeeds Associate Professor Benjamin Ong as NUH Chairman, Medical Board.

DOUBLE-AWARD WINNER – The NUH's Dr Ng Ying Woo (Associate Consultant) from the Department of Obstetrics & Gynaecology clinches two awards (Best Oral Presentation and Asia Pacific Council On Contraception (APCOC) Talent Encouragement Award) at the Second Congress of APCOC.

2009 FEBRUARY

MEDICAL EDUCATOR HONOURED – Associate Professor Koh Dow Rhoun is presented with the Mentorship Innovation and Leadership in Educational Scholarship (MILES) Award at the 6th Asia Pacific Medical Education Conference (APMEC) for his significant contributions to medical education and the APMEC series.

MARCH

NEW CEO FOR THE NUH – Mr Joe Sim, then Chief Operating Officer succeeds Mr Chua Song Khim as the Chief Executive Officer, while Mr Noel Cheah takes on the role of Chief Operating Officer.

GOH FOUNDATION GIVES S\$12 MILLION TO

ADVANCE PAEDIATRIC ONCOLOGY – NUS Yong Loo Lin School of Medicine receives a S\$12 million gift from the Goh Foundation to advance knowledge in the treatment of childhood cancer under the Viva Children's Cancer Program, established by the Viva Foundation for Children with Cancer. These funds will be used to establish the Viva-Goh Foundation Professorship in Paediatric Oncology, as well as to embark on four research programmes for Bone Marrow Transplant, Childhood Leukemia, Bone Cancer and After Completion of Therapy.

A FIRST FOR THE NUHS – Professor Lee Chuen Neng (Deputy Director, National University Heart Centre, Singapore and Chair, University Surgical Cluster) is the first Singaporean president for the Asian Society for Cardiovascular & Thoracic Surgery.

The NUHS thanks everyone who has in one way or another, contributed to the production of this yearbook.
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IT'S BEEN A GOOD FIRST YEAR FOR THE NUHS.

GOING FORWARD, SINGAPORE'S FIRST ACADEMIC MEDICAL CENTRE AIMS TO DO BETTER.

Whether it's in pursuit of meaningful research that will lead to life-saving and life-changing treatments and cures, or turning out better-informed and motivated doctors, dentists and nurses, we believe in doing things well for our patients, so that they in turn can get better.



NUHS

National University
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Yong Loo Lin School of Medicine
& Faculty of Dentistry

The National University Health System, 5 Lower Kent Ridge Road, Singapore 119074
Tel: (65) 6779 5555, Fax: (65) 6779 5678, www.nuhs.edu.sg, Company Registration No. 200801778C