



na·tion·al · can·cer · cen·tre · sin·ga·pore

[NCCS]

1. NCCS has broadened horizons further for tomorrow's medicine.
2. We will do even more for our patients' holistic well-being.



National Cancer
Centre Singapore
SingHealth

“The Advanced Practice Nurse (APN) is a very good consultant. With their knowledge, caring and friendly attitude, I am well and cheerful; all thanks to APNs’ efforts.”

Ms Ang is one of the breast cancer survivors who has benefited from NCCS’ Breast Cancer Survivorship Programme.

Previous spread: Ms Tan Beng Le, Advanced Practice Nurse, NCCS, with Ms Justina Ang, a breast cancer survivor who received treatment in 2003.

2011 was a very good year for Research at the National Cancer Centre Singapore (NCCS). Of the more than 190 research papers published during the year, more than a third had a Journal Impact Factor of >5, including highly influential publications such as Nature and Cancer Cell. On the Clinical Trials front, NCCS continues to lead the nation in cancer clinical trials, with 18 trials completed and a further 112 trials in progress. Ninety-six of these were multi-centre multi-national trials. Subjects recruited for the year alone was in excess of 350, out of the more than 3000 which NCCS had recruited since its inception.

The NCCS continues to lead in bringing the latest cancer treatments to patients in Singapore. This year we began treatment using Intra Operative Radiotherapy – a multidisciplinary approach to cancer treatment utilising the skills of both radiation and surgical oncologists. Other new treatments and techniques deployed include Peritonectomy, and the latest Image Guided Radiotherapy modalities.

Moving forward, we will be building a new NCCS building to ease the current space crunch and to prepare the Centre for the clinical, research, and educational challenges ahead. Integral to the building will be the National Proton Therapy Centre. Proton Therapy, which is fast becoming a crucial mainstream radiation modality, will enhance the armamentarium of our radiation oncologists.

All these advances have led to a very exciting climate of cancer care in the NCCS, which has resulted in many new clinical and research staff coming on board the team. We look forward to the stage of growth and advances, especially as we prepare for the new building to come.

PROF SOO KHEE CHEE
DIRECTOR, NATIONAL CANCER CENTRE SINGAPORE
DEPUTY GROUP CEO, RESEARCH & EDUCATION, SINGHEALTH

NATIONAL CANCER CENTRE SINGAPORE

At NCCS, we have always been single-minded in our battle against a major health threat, to bring a better tomorrow to our patients.

Now, we are setting our sights on a broader view of the future. We are doing more beyond direct treatment, to enhance the holistic well-being of patients and to share and expand our expertise even more effectively.

PATIENT CARE

Among the 6,000 Singaporean women treated at NCCS from 2004 to 2010, a significant 5,060 (84%) are on the road to recovery. With 94% of these patients showing no cancer recurrence, NCCS aims to help them to continue to live healthily.

To support our breast cancer survivors, a Breast Cancer Survivorship Programme was launched. Among the features introduced are value-added services for survivors when they come for annual review, including being attended to by a specially trained oncology Advanced Practice Nurse (APN) for a more holistic review of patients' overall health.

For men, prostate cancer is the third most common cancer in our rapidly greying population, afflicting those even in their early 40s. Four in 100 prostate cancer patients die from this disease. In Singapore, prostate cancer is occurring four times more frequently compared to 30 years ago.

In March 2011, NCCS and Singapore General Hospital (SGH) pioneered a new non-invasive treatment for prostate cancer, the Magnetic Resonance Guided Focused Ultrasound, with seven patients starting on a clinical trial. This is a single session therapy with real-time MR thermometry monitoring and non-ionised radiation.

The use of real-time 3D MR thermometry provides accurate monitoring of the treatment outcome and the adjusting of the treatment according to specific patient physiology. Other major expected benefits



Dr Yap Yoon Sim

Senior Consultant, Medical Oncology, NCCS

In the eyes of Dr Yap Yoon Sim, tomorrow's medicine is about always trying to extend the boundaries of the possible. For the future of oncology, she foresees an era of more "personalised medicine", with much more scope in discovering how people are all different, and so are their tumours.

This means that treatment of cancer in the future might need to be increasingly tailored according to each patient's genetic or tumour profile, hence the need for greater collaboration among practitioners to gather and harness such knowledge. This is evident in a global study of new treatment for breast cancer codenamed "CLEOPATRA", a trial with 808 patients in 25 countries participating, including 10 from NCCS. Although stage four cancers in the context of most cancers are not curable, Dr Yap firmly believes in supporting, conducting and participating in research to facilitate further discoveries.

She says: "With improvement in treatment options, it may not be impossible in the future for certain conditions. Without research, no advances in knowledge and no improvements in treatment outcome will be achieved."



Dr Kwek Jin Wei

Senior Consultant, Department of Oncologic Imaging, NCCS

The whole of Academic Medicine is greater than the sum of its parts for Dr Kwek Jin Wei. As he says, "Individually, we are limited but with teamwork, we can harness the synergy that should exist between teaching, research and clinical care."

Collectively, this will result in effective policies at the national level, and best practices that advance research and education in the health sciences. For example, Dr Kwek was part of the team that conducted clinical trials and pioneered a new non-invasive treatment, the magnetic resonance guided focused ultrasound, to treat prostate cancer patients.

He adds: "We must work together as a team as we continue to seek out new ways of making diagnosis earlier and more accurately, of providing accessible and better treatment for our patients, as well as continuing to provide comfort and care for those who are suffering. That will define tomorrow's medicine."

of the treatment include a low complication rate and that patients can resume their daily activities within a day or two.

EDUCATION

At NCCS, we emphasise on teaching and imparting knowledge to raise the standards of oncology care, not just in Singapore but also in the region, which is in line with our goal to be a global centre of excellence. Towards this end, 45 doctors delivered presentations at overseas oncology conferences to share from our wealth of knowledge and expertise.

The Post Graduate Education Unit hosted 16 fellows from the region in 2011. Each spent between six months to a year, during which they shadowed our clinicians on ward rounds, attended clinics and tumour board meetings, and assisted in surgery.

In line with NCCS' efforts to nurture a teaching culture and a spirit of inquiry, the Humphrey Oei Distinguished Lecture invited Prof Michael Rudolf Stratton from the Wellcome Trust Sanger Institute to Singapore. Prof Stratton delivered the 12th lecture which was on the evolution of the cancer genome.

A Cancer Symposium was held in November 2011 which had doctors from NCCS, Duke-NUS Graduate Medical School (Duke-NUS) and King's College London sharing on their research in cancer. The sessions covered basic and translational research, bio imaging and innovative clinical trials.

RESEARCH

NCCS oncologists led the pack from Asia when they presented eight research abstracts at the American Society of Clinical Oncology (ASCO). The presentation in June 2011 was to an audience of 30,000 world renowned cancer experts who gathered at Chicago, Illinois, USA and covered topics such as diagnostics, patient outcomes, novel therapeutics and drug development relating to sarcoma, breast, stomach and colon cancers.

Associate Consultant Dr Iain Tan of the Department of Medical Oncology, won the ASCO Merit Award for his research on gastric cancer, earning himself an ASCO award in two consecutive years. This brought the award tally to six for NCCS. He was conferred the ASCO Young Investigator Award in 2010.

Potentially groundbreaking research conducted during the year includes the “CLEOPATRA” trial, where 10 patients from NCCS participated. They are part of a global study involving 808 patients from 25 countries by the Roche pharmaceutical group of a new anti-HER2 antibody used to treat advanced stage breast cancer.

NCCS has been active in a number of significant collaborations with Duke-NUS, a partnership that plays a seminal role in our pursuit of tomorrow’s medicine. The NCCS-Duke-NUS collaboration saw a team led by researchers from NCCS and Duke-NUS identifying hundreds of novel genes that are mutated in stomach cancer, and published online in April 2012 in Nature Genetics.

NCCS also collaborated with SGH and Duke-NUS, together with the Genome Institute of Singapore to identify the reason why some patients fail to respond even to some of the most powerful cancer drugs.

NCCS’ Lymphoma Study Group is also collaborating with the National Institutes of Health from the US on a study for lymphoma. The multidisciplinary team is led by Prof Teh Bin Tean, Director and Principal Investigator of the NCCS-Van Andel Research Institute Translational Cancer Research Laboratory (NCCS-VARI), and includes Assoc Prof Lim Soon Thye, Deputy Head and Senior Consultant, from the Department of Medical Oncology.

Other focus groups have also been established in cancer research, overseen by Prof Teh. Cancer-type translational research groups have been set up in lymphoma, peritoneal, head and neck, kidney, breast, pancreaticobiliary cancer and sarcoma. These groups focus on Asian cancers relevant both locally and in the region, to understand

their genetic makeup and to translate this bench-based research into clinical application.

OUR PEOPLE

The Centre firmly believes that the development of our staff is integral to the delivery of better patient outcomes and improving their survival rate. In FY 2011, NCCS sent 143 doctors on overseas conferences and 21 staff (including doctors, nurses, paramedical staff, and research staff) on fellowship, study trips and other training to enhance treatment for our patients.

Among them, Dr Ravindran Kanesvaran, Associate Consultant, Department of Medical Oncology, was on a Health Manpower Development Programme (HMDP) Fellowship in Geriatric Oncology and Genitourinary Cancer Service at Duke University Medical Center. Nurse Manager, Mr Goh Chee Kun was sent on a HMDP Fellowship in Updates on Oncology Surgical Nursing at Memorial Sloan-Kettering Cancer Center and The Institute for Johns Hopkins Nursing.

Also in 2011, NCCS received the People Developer Recertification, which recognises organisations with a total approach to managing people and achieving high performance through its people systems. The recertification demonstrates that NCCS has a motivated workforce and that it continuously brings out the best in people and achieves business performance through its people.

COMMUNITY

In our efforts to serve and connect with the community, we conducted 13 CancerWise workshops and five public forums on different types of cancer and how to manage them. These workshops and forums aim to raise cancer awareness and educate the public on the importance of early screening.

The first Liver Cancer Patient Support Group in Singapore was set up in September 2011 to help patients and their loved ones cope with

the disease before, during and after treatment. The support group will organise activities for members ranging from educational talks to social networking. Their activities will benefit about 80 patients with newly diagnosed liver cancer at NCCS each year.

KEY FIGURES

NATIONAL CANCER CENTRE SINGAPORE	Year ended 31 Mar 2012	Year ended 31 Mar 2011
Workload per annum		
Day Surgeries	10,208	10,494
Specialist Outpatient Clinic Attendances	131,408	129,692
Staffing (as at end Mar)		
Total	634	591
Doctors	135	126
Nurses	130	119
Allied Health Professionals	149	133
Others	220	214

Note: Staffing figures refer to Filled Posts, in terms of Full-Time Equivalent, and may not add up to total due to rounding.

AWARDS & ACCOLADES

PATIENT CARE

President's Science and Technology Medal

- Prof Soo Khee Chee

GCEO Excellence Awards

Outstanding Clinician Award

- Dr Joseph Wee

Outstanding Nurse Award

- Connie Ong

Outstanding Allied Health Professional Award

- Chang Yok Ying

Outstanding Ancillary Staff Award

- Jennifer Chin

Outstanding Administrative Staff Award

- Lorraine Yip

College of Surgeons, Academy of Science Singapore

Young Surgeon's Award

- Dr Lee Ser Yee

EDUCATION

Duke-NUS Graduate Medical School

Benjamin Sheares Professorship

- Prof Soo Khee Chee

RESEARCH

SingHealth Excellence Award

Distinguished Researcher Award

- Prof Kanaga Sabapathy

American Society of Clinical Oncology (ASCO)

Merit Award

- Dr Iain Tan

International Research Promotion Council

Eminent Scientist of The Year

- Dr Melvin Chua

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