To commemorate the completion of ten years of neurosurgery at the National Neuroscience Institute (NNI), the Department of Neurosurgery organised a series of scientific and educational forums. It comprised a scientific symposium on the developments of neurosurgery, a trauma spine nursing seminar and a public forum on brain tumours.

A five-day scientific symposium was organised from 4 to 8 October 2010 with renowned faculty speakers from USA, Taiwan and Asia presenting the most up-to-date information in neurosurgery. The department also took the opportunity to invite international Fellows back to the NNI from around the world to attend the meeting. They included Dr Tomas Krcik from Czech Republic, Dr Mohamed Awad from Saudi Arabia, Dr Tran Minh Tri from Vietnam, Dr Elio Amaldo from Paraguay and Dr Hirofumi Morihara from Japan who participated and contributed to the symposiums and discussions.

The symposium included workshops on spine, normal pressure hydrocephalus, neurotrauma and neurovascular topics. Delegates welcomed the hands-on sessions, where they had the opportunity to experiment with the latest equipment and instruments. They were also given the opportunity to visit the KTP-NNI Integrated Neuroscience Centre at Singapore General Hospital (SGH). This facility integrates information and technology digitally, providing a new standard in patient care.

“I believe that the programme and the combination of local and foreign speakers, together with plenary sessions and workshops were a very useful way to cover as much updates as possible. This is a memorable event as it marks the development of the neurosurgery department in NNI and how it has established itself internationally over the years”, said Associate Professor Ivan Ng, Head and Senior Consultant, Department of Neurosurgery, NNI.

Continued to page 2
Few diseases or injuries have greater potential for causing death or
devastating effects to the quality of life than spinal cord injury. It involves
people of all ages and in traumatized patients, up to 3 - 25 percent of
spinal cord injuries occur during field stabilization, transit to hospital,
or early in the course of therapy. This means that, in order to prevent
additional neurologic disability, care of any severely injured patient must
include neck stabilization until cervical fracture is ruled out.

Since the prognosis for recovery from complete cervical cord lesions is
poor, emphasis must first be placed on preventing injury and second
on preventing extension of neurologic injury once trauma has occurred.
Rehabilitation begins during the acute treatment phase and becomes
more comprehensive as the patient’s condition improves.

The 2nd Singapore Spine Nursing Seminar was organised on
2 October 2010 to cover the medical, surgical, nursing and rehabilitation
perspectives in the management of spinal cord injury. Many common
nursing interventions including cervical immobilization techniques and
spinal nursing were also discussed. A guest speaker, Mr Thomas
Chua touched the hearts of many with a moving story of his personal
experiences after a spinal cord injury.

The seminar was organised in conjunction with the NNI International
Symposium of Neurosurgery, and to commemorate the establishment
of neurosurgery in NNI. Over 140 participants, comprised of nurses and
allied health professionals attended the seminar.
Coping With Brain Tumour

In conjunction with the completion of ten years of neurosurgery at National Neuroscience Institute (NNI), an English public forum on brain tumour was organised. The forum on 2 October 2010, held at the Ren Ci Hospital and Medicare Centre, focused on coping with brain tumour, including its challenges and support.

Dr Ng Wai Hoe, Senior Consultant from the Department of Neurosurgery, NNI spoke about the latest in neurosurgery, while Melissa Chew, a senior medical social worker from Tan Tock Seng Hospital talked about coping with the challenges of being diagnosed with a brain tumour and the community resources available.

Surviving A Brain Tumour

Brain tumour survivor, Melissa Lim, gave us an inspiring account of how she came to terms with her diagnosis and how she eventually overcame her struggles.

It was in 2003 when she was admitted to hospital for severe dizziness, vomiting and weakness. After the MRI scan, it was found that she had a tumour the size of a golf ball in her right brain, called an acoustic neuroma. It was especially difficult to accept the news as she was not the first in her family to suffer from a brain disease. Her mother had died from brain cancer in 1998.

Fortunately for her, the tumour was benign and she had a good chance of recovery. However, after undergoing surgery in February 2004, her hand-eye coordination was severely affected and she also experienced paralysis on the right side of her face. As a result of a complication caused by a leak in her brain membrane, she had to undergo two lumbar punctures and yet another operation two weeks later. It took Melissa many months of exercises before she regained her motor function.

Nevertheless, she returned to work after two months even though she was not fully recovered from her facial palsy. A year after her surgery, she also ran the 10km Standard Chartered race and continues to keep herself fit.

“Acceptance of illness”, “acceptance of post-op self”, and “going the distance” by joining a support group, were some of the hurdles Melissa had tackled. Her positive attitude of “I can and I will” helped her through the post-operation effects. She stressed the importance of optimising recovery during the window period by exercising regularly, eating well and having adequate rest. Appreciating the small blessings, finding other meaningful ways to live life, having quality family time and “smile, laugh and hope” were but the little bits of optimism which saw Melissa through.

Her parting words to us were - “Life must go on!” and “May you seize the day – Carpe Diem”.

Brain Tumour Survivor, Ms Melissa Lim.

Celebrating 10 years of Neurosurgery at NNI

The National Neuroscience Institute (NNI) completed ten years of neurosurgery, since the Department of Neurosurgery was first established at Tan Tock Seng Hospital (TTSH). Since then, it has trained many of the practicing neurosurgeons in Singapore. A number of co-ordinated subspecialties have matured over the years and now include trauma, oncology and skull base, neurovascular, functional, paediatric and spine neurosurgery programmes which are comparable to the top neurosurgical centres throughout the world.

The development of the KTP-NNI Integrated Neuroscience Centre at Singapore General Hospital (SGH) in 2007, the world’s first integrated neurosurgical centre, positioned NNI further in the forefront of neuroscience care, in Singapore and the region.

1956

• Sir Douglas Miller operated and lectured at the Surgery “A” Unit of the Singapore General Hospital (SGH). He also helped train the first local neurosurgeon - Dr Tsang Yuen Lin.

1962

• The Ministry of Health designated Dr Tham Cheok Fai of “C” Orthopaedic Unit for training in neurosurgery by Dr Murray Falconer at Guy’s, Maudsley and King’s College Hospitals in London.
• Dr Tham then established the foundation for a neurological unit in Singapore.

1965

• A section on neurosurgery was started by Dr Tham Cheok Fai at the *Thomson Road General Hospital.
• It further developed with significant contributions by Prof Norman Dott and Prof John Gillingham.

1973

• The Department of Neurosurgery was set up at Tan Tock Seng Hospital, integrated with the Department of Neurology. Pioneers of this unit include Dr Tham Cheok Fai, Dr Gopal Baratham, Dr James Khoo, A/Prof Ong Peck Leong and many others.

1999

• Establishment of NNI resulted in the transfer of the Department of Neurosurgery from TTSH.

2007

• The Khoo Teck Puat (KTP)-NNI Integrated Neuroscience Centre opened at SGH.

2008

• The combined NNI-TTSH Spine Service was established.

* Thomson Road General Hospital as renamed Toa Payoh Hospital in 1975, and later moved to Changi and became Changi General Hospital.
Three out of every thousand Singaporeans run the risk of being afflicted with Parkinson’s disease, a slow progressive movement disorder. The National Neuroscience Institute (NNI) Parkinson’s Disease Support Group at Singapore General Hospital (SGH) was formed in 1997 to provide patients and caregivers a supportive environment to share experiences and information, that will help them better cope with their challenges.

This pilot art project designed by Singapore visual artist Michael Tan for the patients in the support group, combines nature and art in a creative stimuli that aims to promote their muscular, cognitive and social well-being. Nature has always been a source of inspiration and relaxation. “Birdsong” was inspired by the relaxing chirping of birds one hears in nature. As a collaboration between the artist, SGH staff and patients of the support group, the project explored the roles and significance of artistic activity in enriching lives in various manners in a healthcare environment.

The project began with a workshop where the group was introduced to paper clay and was asked to imagine and create their paper clay birds. The group returned the following week to add colours to their artworks using acrylic paints. Their works of art are displayed in the Garden at Block 5 and ArtExpressions at Block 2, Level 1 of SGH.

Among the successful candidates were NNI registrars (first and third from left), David Low and Vincent Ng.

The National Neuroscience Institute (NNI) played host to the Joint Specialty Fellowship Examination in Surgical Neurology, organised by the Chapter of Neurosurgeons, College of Surgeons, Singapore. The examinations were held from 20 to 21 September 2010 for the first time in Singapore.

The examinations were conducted at NNI Neurodiagnostic Laboratory rooms and at the Neuroscience Clinic meeting room, where four candidates, by which two were NNI doctors and two from Hong Kong, took their exit examinations. The examiners’ panel included those from The Royal College of Surgeons of Edinburgh and College of Surgeons of Hong Kong.
Holistic Assessment of Parkinson’s Disease

Following the first series of the National Neuroscience Institute-Community Care Partners Programme (NNI-CCPP) workshops in 2008, a follow up session was organised on 4 September 2010.

The “Holistic Assessment of People with Parkinson’s - How To Do It Better?” attracted over 50 allied health professionals and nurses. This workshop was specially organised to update participants with assessment techniques from the therapy and nursing perspective.

Ms Lau Puay Ngoh, Nurse Clinician from NNI, conducted an interactive session on nursing assessment with case discussions and group presentations, while Mr Gowrirajan Thirumalai, Occupational Therapist and Ms Sylvia Liew, Physiotherapist, from Tan Tock Seng Hospital spoke on the various assessment methods an allied healthcare professional can provide to people with Parkinson’s living at home and in the community.

Different stations were set up for the balance and movement assessment methods and participants were given the opportunity to role play the symptoms of a patient and taught how to identify and assess Parkinson’s disease.

Ms Sylvia Liew at one of the stations for the balance and movement assessments.

Ms Lau Puay Ngoh conducting a case discussion.

Group discussions on case studies.

Wellness and Health in Parkinson’s Disease

Parkinson’s disease (PD) impairs motor skills, speech, and other functions. Education, support and counseling can help both patients and caregivers better understand the challenges of the disease so as to remain well and in good health. On 25 September 2010, Changi General Hospital (CGH) in conjunction with National Neuroscience Institute (NNI) and the Parkinson’s Disease Society (Singapore) or PDSS, organised a public forum in both English and Malay.

Over 120 people turned up for the forums held at CGH. This was the first time a public forum was conducted in Malay, and is a first step towards reaching out to the Malay community.

Ms Julie Lau, President of the PDSS opened the forum. Along with Dr Christopher Lien, a Senior Consultant, Division of Geriatric Medicine, CGH, who explained about PD and its treatment options, Ms Anne George and Ms Mindy Chiang covered topics on rehabilitation in areas such as movement and activity, swallowing and communication in PD. Dr Lien is also the driving force behind CGH’s PD Support Group.

The public forum received good feedback as most commented that they learnt more on how to care for people with Parkinson’s, and importantly, are now aware of the presence of strong support groups for Parkinson’s disease.

Dr Yoon Peng Soon, giving his presentation at the Malay forum.

For more support groups, see back page (Page 12).
Staying Healthy Through The ‘Silver Years’

As part of its effort to address Singapore’s ageing population and the need for effective management of chronic diseases, the National Neuroscience Institute (NNI) participated in the ‘Silver Years’ Health forum in Mandarin, organised by SingHealth. Associate Professor Lo Yew Long, Head and Senior Consultant, Department of Neurology, NNI (Singapore General Hospital campus) gave a talk on “Cut Your Risk Of Stroke” at the main forum, held on 6 November 2010.

The greying population is a global phenomenon including Singapore’s own silver generation; those 50 years old and above is also fast growing. As our population ages, there will be an increasing need for effective management of chronic diseases, specialised patient care and personal healthcare.

According to a study commissioned by the Council for Third Age, the local silver population’s top health concerns are chronic and serious illnesses such as stroke, diabetes, cancer, high blood pressure and mobility. From the study, it is clear that the elderly want to be healthy and not be a burden to the family. So a healthy lifestyle, early detection and treatment of any medical condition are important.

Through this health forum, key health issues in the elderly and the importance of preventive healthcare were highlighted. This in turn, will help the silver generation lead more dependent lives and lifestyles, resulting in lower medical costs on a personal and national level.

Singapore Stroke Conference into its 12th Year

The annual Singapore Stroke Conference organised by the National Neuroscience Institute (NNI) was held from 29 – 30 October 2010 at the College of Medicine Building Auditorium, Ministry of Health.

This year’s meeting was designed to provide a comprehensive update to healthcare professionals involved in stroke patient care. The innovative format included plenary sessions, a medical symposium on emerging issues, a nursing workshop and a dedicated symposium for primary health physicians. The acute stroke management sessions focussed on acute reperfusion strategies. There was a panel discussion on the development and organisation of a stroke unit. The multidisciplinary session included updates from various sub-specialists involved in stroke care highlighting developments in their fields related to stroke management.

The faculty included experts from various local institutions as well as foreign speakers; Associate Professor Joey English from the University of California, USA, Professor Lawrence Wong from the Chinese University of Hong Kong and Dr Nijasri Suwanwela from the Chulalongkorn University Medical School, Thailand, were also invited to share their expertise.

The two-day conference was attended by 250 participants with over 40 foreign delegates from the region. The participants included family physicians, specialists, doctors in training, nurses, allied health professionals, administrators and scientists. The conference was organised as part of the World Stroke Day activities.
Act FAST for Stroke

In conjunction with World Stroke Day, the National Neuroscience Institute (NNI) together with the Joint National Healthcare Group-SingHealth Stroke Disease Management workgroup, organised a stroke public forum on 23 October 2010.

Participants learnt about different types of strokes, reducing stroke risk, how to choose healthy meals when dining out and simple exercises which they can do anywhere.

‘Many people still lack the knowledge about early treatment for stroke. We hope that by having such talks, more are educated about the signs and symptoms of stroke and act FAST when there are symptoms onset,’ said Dr Lee Sze Haur, Organising Chairman and Senior Consultant from the Department of Neurology, NNI.

Act FAST

STROKE IS AN EMERGENCY. Recognise stroke symptoms and act F.A.S.T. Early treatment may limit the effects of stroke.

F - Facial droop. Uneven smile.
A - Arm numbness. Arm weakness.
SPEECH - Slurred speech. Difficulty in speaking or understanding.
TIME - Call 995 and get to the hospital immediately.

Reaching To The Community - Stroke Talks at Polyclinics

Stroke is a medical emergency that requires immediate attention. With that in mind, Dr Deidre De Silva, Consultant from the Department of Neurology (SGH Campus), National Neuroscience Institute, initiated a public outreach programme comprising hour-long talks. The programme organised with the National Healthcare Group (NHG) polyclinics and SingHealth polyclinics aimed to increase knowledge of stroke risks and prevention as well as awareness of stroke symptoms and the FAST message. The talks were held in November 2010, at the Geylang, Outram, Tampines and Woodlands Polyclinics.

Dr Jennifer Manzano from the Department of Neurology (NN-SGH campus) speaking at the Tampines Polyclinic.
Screening and Early Diagnosis of Dementia
- NNI Memory Awareness Initiative

An early diagnosis is important in fighting against dementia. Sometimes, it can prevent the severity of certain symptoms. That was the primary aim of the National Neuroscience Institute (NNI) free public memory screening held on 13 November 2010. It was part of the NNI Memory Awareness Initiative, which was in its third year.

More than 100 people aged 50 years and above, signed up for the screening, with many coming for the first time. When asked what prompted them to participate, many expressed they were curious to know if they have dementia. The screening included simple questions and problems to check cognitive functions such as memory, orientation and judgement.

The set of questionnaires used are designed to assist healthcare professionals detect mild cognitive impairment (MCI). MCI is a condition where patients or caregivers notice memory or other cognitive difficulties, but still able to function independently. According to Dr Nagaendran Kandiah, Organising Chairman and Consultant from the Department of Neurology, “MCI can affect people in their prime when they are still contributing to the society and has a high chance of progressing if goes undiagnosed. We strongly believe with early intervention, we are able to manage the cognitive deficits more effectively.”

About Dementia

What is Dementia?

Dementia is the medical term used to describe a group of symptoms consisting of memory loss, impaired judgment, disorientation and behavioural changes, which are of sufficient severity to cause loss of function.

It is not part of normal ageing, although the elderly are more susceptible to becoming demented. Dementia occurs because there is degeneration of brain function, which eventually affects social or occupational activities.

Common Symptoms
- Recent memory loss that affects job performance
- Difficulty performing familiar tasks
- Problems with language
- Disorientation and behavioural changes
- Poor or decreased judgment
- Problems with abstract thinking
- Misplacing things
- Changes in personality
- Loss of initiative
- Changes in mood or behaviour

Why is it important to have a diagnosis?
- Reduce anxiety for the patient and their family.
- Receive early treatment to slow down the disease.
- Alleviate disturbing behavioural symptoms.
- Better access to resources and information.
- More time to plan for the future.

Where to seek support?
- NNI (TTSH) Alzheimer’s Disease and Dementia Clinic
- NNI (SGH) Neurodegenerative Diseases Clinic
- Alzheimer’s Disease Association of Singapore
- Health Promotion Board

A Lesson in Giving and Sharing

It was an ordinary day, made extraordinary. A National Neuroscience Institute team comprising staff from the departments of Office of Clinical Studies and Research volunteered to do their part for the President’s Charity Challenge.

They organised a one-day outing for fifty residents of the St Luke’s Eldercare at Whampoa on 15 July 2010. While eagerly waiting for the day, they prepared gifts of goodie bags packed with towels, ointments, oat crackers, coffee and many more for the residents.

The day started early at 8 am. A bus was chartered to bring the residents to the Ang Mo Kio Hub for shopping. With their mind focused on bringing cheer to the residents, they wasted no time in befriending the residents. Soon, they were happily chatting and sharing stories with them over lunch, followed by a karaoke-sing-along-session back at the centre. Lunch was simple yet memorable as some elderly shared their life stories with them. Even more memorable were the smiles and joy on the residents’ faces as they clapped and sang along. At the end of the day, both the residents and the team enjoyed themselves and took home many happy memories.

“It was a memorable day and one of the best, priceless unforgettable gifts we ever received!” said team leader Charmaine Soon.
Providing Care to the End
Palliative Care In Neurology

As the prevalence of neurological diseases increases with the ageing population, the awareness of palliative care for neurological conditions also increases. Patients with degenerative neurological disorders are among the most neglected. Many of their conditions, e.g. motor neurone diseases, stroke with bad outcomes, advanced dementia, muscular dystrophies and Parkinson’s disease, are incurable.

The 2nd Colloquium of Neurological Palliative Care held on 4 December 2010, was planned with this in mind. The conference jointly organised by the Department of Neurology, National Neuroscience Institute (NNI), and Department of Palliative Medicine, Tan Tock Seng Hospital, brought together a multidisciplinary faculty of doctors, nurses and therapists to discuss the many dimensions of palliative care. Topics such as basic principles of palliative care, ethical dilemmas and, challenges and controversies were also covered. The programme also included interactive case presentations and discussions on disease specific issues such as dementia, parkinsonism, stroke and motor neurone diseases.

The aim of the conference was to increase awareness of the palliative care needs of people with neurological diseases and improve the collaborative approach to holistic care involving both neurological and palliative care services. This would eventually lead to enhanced care management so that the quality of the patients’ lives and their families can be improved.

What is Palliative Care?

It is an approach to the management of patients with life-threatening illness that attempts to enhance comfort, relieve psychosocial and spiritual distress, assure respect for decision making, provide support for the family and prepare the patient and family for the end of life.
The annual Advanced Neuroradiology Course organised by the National Neuroscience Institute (NNI) was held on 1 and 2 November 2010. The theme this year was “Innovations in Neuroradiology and Head & Neck Radiology”. It was well attended by close to 200 participants from Singapore and other countries in the Southeast Asia region – the highest participation so far. This year it would be eleven years since the Advanced Neuroradiology Course was first organised.

The specially invited international faculty included Professor Scott Atlas from the Sanford University Medical Center, USA, Professor John Chaloupka and Associate Professor Joey English from the USA, and Dr Kei Yamada from the Kyoto Prefectural University of Medicine, Japan. They shared their knowledge and updated the participants on the newest developments in the fields of MR Perfusion and the role of imaging in adult white matter disease.

Local faculty included experts from Singapore General Hospital, National University Cancer Institute, KK Women’s and Children’s Hospital and Mount Elizabeth Hospital.

The course comprised lectures and discussions on diagnostic and interventional neuroradiology topics which were important to all doctors and healthcare professionals in neuroradiology, head and neck neuroradiology, oncology, and the other neuroscience disciplines.

The faculty provided comprehensive coverage of this year’s theme. Apart from the scientific sessions, there was a technical exhibition, featuring the latest in neurointerventional and neuroimaging equipment and devices.
A Singaporean neurologist has been elected into the American Neurological Association (ANA), making him the first local doctor to join the league. Associate Professor Tan Eng King, a Senior Consultant with the Department of Neurology (Singapore General Hospital campus) of the National Neuroscience Institute (NNI), secured a majority number of votes from the members, selection committee and executive council.

Founded in 1875, ANA is a professional society of academic neurologists and neuro-scientists devoted to advancing the goals of academic neurology and to training and educating neurologists.

A/Prof Tan was elected based on his contributions as a clinical neurologist, scientist and educator. He joins a small select group of Asian neurologists, who will lead the academic neurosciences.

On his ANA election, A/Prof Tan said this will help raise the international prominence of Singapore when it comes to “the quality of clinical care and academic work on neurological diseases”.

‘It also opens the way for more local neurologists and those in the region to play a greater role in education, training and academic work in this highly regarded professional society in USA. This will, in turn, elevate the standard of care and research in neurological diseases to the benefit of patients,’ he added.

Invited Lecture by NNI neurologist at ANA

A/Prof Tan Eng King had the honour to deliver an invited lecture “Genetics of Parkinson’s disease and Essential Tremor” at the 135th Annual Meeting of the American Neurological Association in San Francisco, USA in September 2010. As an expert, A/Prof Tan discussed recent advances in the field and also engaged the audience in a lively discussion.

Achievements for NNI Research

Calvin Yeo Wee Sing, a Ph.D. student with A/Prof Lim Kah Leong, Adjunct Senior Research Scientist at NNI Research, was selected as one of six finalists for the Best Oral Paper Award at the SingHealth Duke-NUS Scientific Congress held from 15 - 16 October 2010, where he also gave a talk on "Parkin, a novel brain tumor suppressor".

Separately, Grace Lim Gui Yin, another Ph.D. student working in A/Prof Lim’s laboratory, was the sole nominee selected by the local Society for Neuroscience (SFN) chapter for a travel award to attend the 2010 SFN meeting held in San Diego, USA from 13 to 17 November. She had earlier delivered a mini lecture on protein ubiquitination and neurodegeneration at the SFN local chapter 1st Anniversary Meeting. Recently, Grace has also co-written an invited review article with A/Prof Lim on the topic, which is currently in press in a special issue of the journal, Neurobiology of Disease.

Both Calvin and Grace are Singapore Millennium Foundation Scholars. We congratulate them on their research achievements.
CALENDAR OF EVENTS
(January – July 2011)

- Talk by HMDP Expert in Parkinson’s Disease Rehabilitation
  (15 January)

- Neuroscience Seminars for Family Physicians*
  - Headache and Giddiness
    (2 April)
  - Neuromuscular Disorders
    (7 May)
  - Movement Disorders and Dementia
    (9 July)

- 2nd Singapore International Neurocognitive Symposium 2011
  (4 – 5 March)

- 3rd EEG-EMG-Autonomic Workshop
  (25 – 27 March)

- Parkinson’s Disease Public Forum
  (9 April)

* Dates subject to change.

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c/o National Neuroscience Institute
Department of Neurosurgery
Tel: 6357 7545

Epilepsy Support Group
c/o Singapore Epilepsy Foundation
Tel: 6334 4302
Website: http://www.epilepsy.com.sg

Multiple Sclerosis Support Group
c/o MS Care
Tel: 6835 9916
Email: info@chcsa.org.sg

Muscular Dystrophy Support Group
c/o Muscular Dystrophy Association (Singapore)
Tel: 6259 6933
Website: http://www.mdas.org.sg

Neurovascular Befriender Services
c/o National Neuroscience Institute
Department of Neurosurgery
Tel: 6357 7545

Parkinson’s Disease Support Group
NNI at Tan Tock Seng Hospital
c/o National Neuroscience Institute
Neuroscience Specialists Outpatient Clinics (Level 1)
Tel: 6357 7605

NNI at Singapore General Hospital
c/o National Neuroscience Institute (SGH Campus)
Rehabilitation Centre (Education Resource Room, Block 1, Level 1)
Tel: 8125 3543

Stroke Support Group
c/o Singapore National Stroke Association
26 Dunearn Road, Singapore 309423
Tel: 6358 4138
Website: http://www.snsa.org.sg

For more information on Support Groups, visit our website at www.nni.com.sg

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