MERDEKA
AWARD

2008

MERDEKA AWARD
2008

“It is our hope that the Merdeka Award will earn its recipients a place in history as individuals and organisations who have truly gone beyond the call of duty for the nation and its people, embodying in their work the sincerity, integrity and commitment of the nation’s founding fathers.”

Tan Sri Dato’ Seri Mohd Hassan Marican
Chairman of the Board of Trustees, Merdeka Award

The Merdeka Award

In conjunction with the celebration of Malaysia's 50 years of independence in 2007, the oil and gas industry came together in a spirit of unity to offer an enduring contribution to the people of Malaysia.

The Merdeka Award was thus established by its Founders, namely ExxonMobil, PETRONAS and Shell, on 27 August 2007, to recognise and reward Malaysians as well as non-Malaysians who have made outstanding and lasting contributions to the nation and the people of Malaysia in their respective fields.

The choice of name, Merdeka Award, reflects the Founding Members' aim to commemorate the true spirit of independence, which transcends the conventional definition of national sovereignty. It explores the liberation of the mind and spirit – factors which foster the realisation of human potential and the pursuit of excellence.

Each year, the annual Merdeka Award will be conferred on individuals and organisations whose excellent work and achievements have made an outstanding impact on the nation and its people in the following categories, namely Education and Community; Environment; Health, Science and Technology; Outstanding Scholastic Achievement and Outstanding Contribution to the People of Malaysia.

The Award categories reflect focus areas that are regarded as instrumental to the overall growth and development of a nation. One award will be made for each of the five categories above. In the event that in a given year, two individuals or organisations are deemed to be equally deserving of recognition, the award will be shared. The Merdeka Award recipient will be awarded with an inscribed certificate, a trophy and prize money of RM500,000.

Nomination & Selection

The nomination and selection of Merdeka Award recipients is administered by six committees – five Nomination Committees and one Selection Committee. These committees go through a long and rigorous selection process that reflects the high ideals of the Merdeka Award.

The committee members are made up of eminent individuals from Malaysia and abroad, bringing with them a wealth of knowledge, experience and expertise to allow them to nominate and select outstanding individuals and organisations who have laboured tirelessly, with great sincerity and conviction for the good of this country and its people.

Each year, the committee members will deliberate, examine the merits and finer qualities of each individual or organisation's nomination, and in the end, identify those who have stood above and beyond the rest, in their embodiment of the Merdeka spirit.

Categories & Recipients 2008

EDUCATION AND COMMUNITY

Royal Professor Ungku Abdul Aziz Bin Ungku Abdul Hamid

For outstanding contribution to the eradication of poverty, rural economics, the development of Tabung Haji and in the field of education

ENVIRONMENT

Malaysian Nature Society

For outstanding contribution to the Belum-Temenggor Forest Complex Conservation Initiative

HEALTH, SCIENCE AND TECHNOLOGY

Nipah Virus Encephalitis Investigation Team from The Faculty of Medicine, University of Malaya

For outstanding contribution to the discovery and understanding of the causes, effects and control of the Nipah encephalitis viral infection

&

Professor Dato' Dr Khalid Kadir

For outstanding contribution to the study and understanding of diabetes and the relationship between hormones and stresses in various tissues

OUTSTANDING SCHOLASTIC ACHIEVEMENT

No Winner

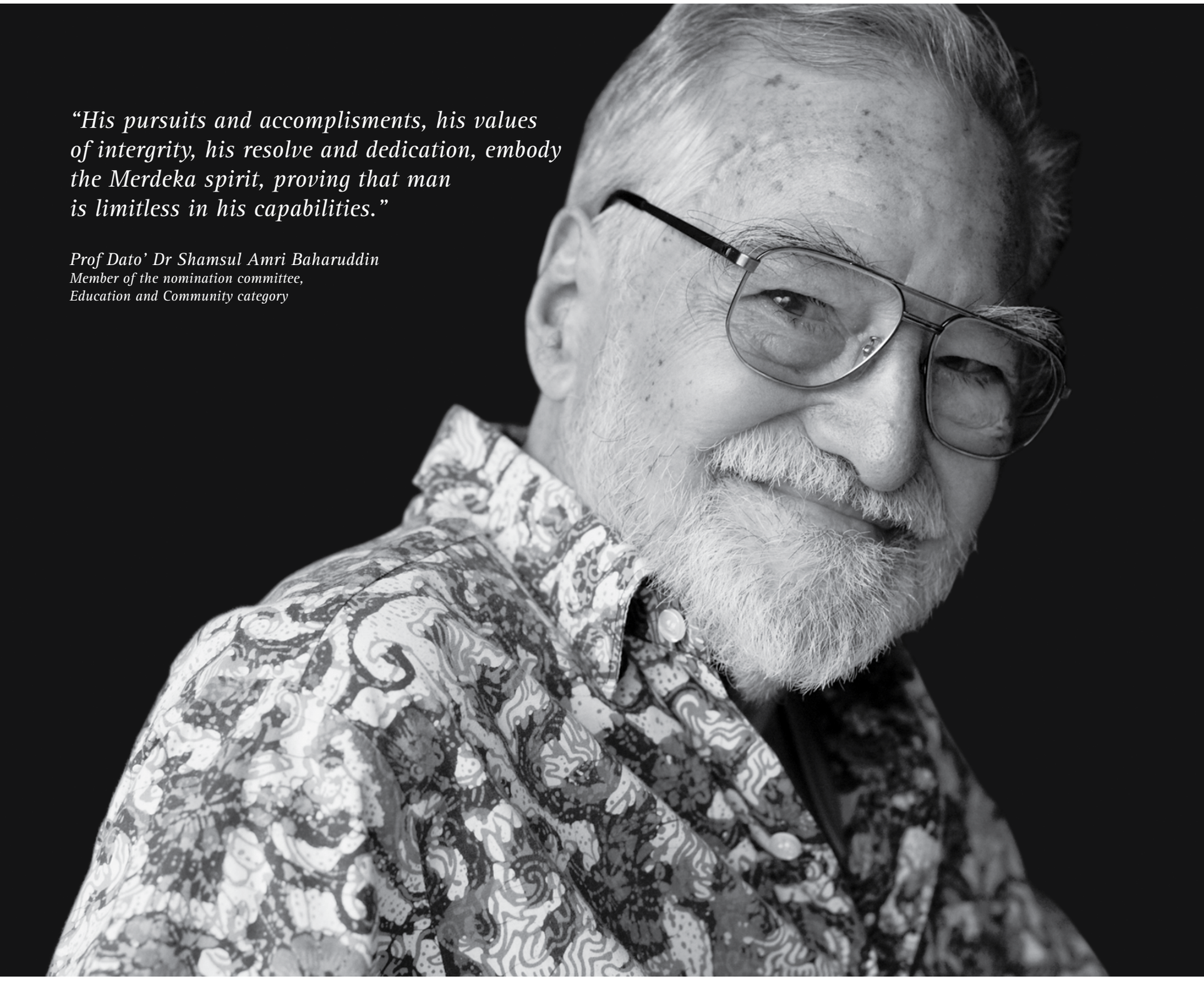
OUTSTANDING CONTRIBUTION TO THE PEOPLE OF MALAYSIA

Datuk Leslie Davidson

For outstanding contribution in the introduction of the pollinating insects Elaeidobius kamerunicus from Africa to the oil palm and plantations in Malaysia, leading to the rapid development of the palm oil industry

Education & Community

Awarded to individuals and/or organisations to honour exceptional thinking and research in strengthening the educational infrastructure of Malaysia, in elevating the level of education and in benefiting the marginalised.



ROYAL PROFESSOR UNGKU ABDUL AZIZ BIN UNGKU ABDUL HAMID

PROFILE

Royal Professor Ungku Aziz bin Ungku Abdul Hamid was born on 28 January 1922 in London, England.

Spending most of his childhood years in Johor Baru, he completed his primary education in 1934 and subsequently attended English College, Johor Baru. He completed his secondary schooling at Raffles College, Singapore. Ungku Aziz's early education was interupted by the Second World War and the Japanese Occupation but he managed to spend two years in Waseda University in Tokyo, to which he would later return to complete his post graduate study.

At the end of the Japanese Occupation, Ungku Aziz returned to Malaysia and commenced work in the civil service. Determined to continue his education, he enrolled in Raffles College where he obtained a Diploma in Arts in 1947 and went on to graduate with a first class Bachelor of Arts in Economics degree from the newly formed University of Malaya in 1951. Ungku Aziz obtained his Doctorate in Economics in 1966 from Waseda University, Tokyo.

When Ungku Aziz entered into a career in academia, his career proved to be exceptional both in its longevity and in its brilliance. Since his arrival at the university in 1952, Ungku Aziz has taught as a Lecturer in Economics at the University of Malaya, obtained full professorship, became the Dean of the Faculty of Arts, and then Dean of the Faculty of Economics and Administration.

In his study, where he spends much time reading, writing and thinking

Morning walk; Ungku Aziz to this day maintains his routine of taking a brisk walk every morning

In 1968, Ungku Aziz ascended to the helm of the university and succeeded Dr J H E Griffiths as Vice Chancellor of the University of Malaya, becoming both the first Malaysian and the longest serving person to hold the post. Having received a Royal Professorship in 1978. He remains the sole Malaysian to hold the title. Ungku Aziz retired as Vice Chancellor in 1988. As an Emeritus Professor after retirement, Ungku Aziz has not stood still. He holds directorships in several companies and continues to be involved in many national and international institutions.

In recognition of his career as an outstanding academician and his contributions to society, Ungku Aziz has been bestowed with numerous awards and honours, including the Ordre des Arts et des Lettres (France), the Grand Cordon of the Order of the Sacred Treasure (Japan), the Tun Abdul Razak Foundation Award (Malaysia). Ungku Aziz has also received many honorary degrees from universities worldwide.

Ungku Aziz's devotion to his academic career has not detracted from his enjoyment of other pursuits. He remains a voracious reader, to the point of having to limit his purchases to no more than six books at a time. Ungku Aziz is also an aficionado of Malay poetry, and is currently compiling a database of traditional Malay pantun (poetic couplets). Ungku Aziz has enjoyed the art of photography from an early age, with his interest extending beyond merely taking pictures to dark room photograph development. He also believes in the importance of a healthy lifestyle, and to this day, never neglects his strict exercise regimen and adheres to a nutritious and balanced diet.

Ungku Aziz is married to Puan Azah Aziz, and is the father of Tan Sri Dr Zeti Akhtar Aziz, the current Governor of Bank Negara Malaysia, Malaysia's central bank.

OPENING MINDS AND OPPORTUNITIES

Out of Ungku Aziz's myriad achievements, the following were selected as being his greatest contributions to Malaysian society in the fields of Education and Community.

Addressing a community gathering

POVERTY ERADICATION AND RURAL DEVELOPMENT

Ungku Aziz has been responsible for much research in attempting to address domestic poverty. The subject, being dear to his heart, has spurred him to research the root causes of rural poverty in Malaysia, as well as identifying methods by which to alleviate poverty.

Ungku Aziz formulated the sarong index as a measure of rural poverty, and the Theory of Neglect as the reason behind rural poverty. He has posited that three main factors were the causative agents of Malaysian rural poverty, namely low productivity, discrimination and institutionalised obstacles.

His work was instrumental in spurring governmental rural development programmes aimed at benefiting the impoverished peasants and fisherfolk. Among the initiatives proposed by Ungku Aziz was the creation of monopolies to bypass the middlemen who previously acted as the distribution channel of produce to the retail market. Ungku Aziz has constantly sought to improve the level of opportunities available to the rural community, and many of his other achievements stem from his work on poverty eradication.

TABUNG HAJI

The creation of Lembaga Urusan dan Tabung Haji (the Pilgrims' Fund and Management Board, generally referred to as Tabung Haji) was among Ungku Aziz's most significant accomplishments. The idea behind Tabung Haji was to provide an avenue for Muslims to save money in order to perform the Haj, as well as an investment vehicle governed by Islamic principles.

Ungku Aziz's recommendations were accepted by the government, and the Perbadanan Wang Simpanan Bakal-bakal Haji, a precursor to Tabung Haji, was established in 1962, with Ungku Aziz becoming the first depositor. This body was merged with the Pejabat Urusan Haji (Pilgrims Management Office) in Penang to form Tabung Haji in 1969, with an expanded role.

Tabung Haji, in its dual role, is responsible for preparing pilgrims for the Haj, and managing the logistical issues of the pilgrimage, such as plane tickets and accommodation. In its fund management role, in accordance with its Islamic focus, Ungku Aziz introduce profit sharing, inline with the Sharia principle as a means of income generation for the accrued deposits in Tabung Haji.

Tabung Haji is now a multi billion Ringgit enterprise with a wide spread of investments administered according to Islamic tenets. Its success has earned admiration from many other Islamic nations. In spite of this, it has remained true to Ungku's vision of a fund accessible and available to Muslims wishing to fulfil their religious obligation.

CONTRIBUTIONS TO THE NATIONAL COOPERATIVE MOVEMENT

As a means of alleviating poverty and of encouraging rural cooperation and development, Ungku Aziz has strongly backed the Malaysian co-operative movement. He has served as the President of ANGKASA, the National Co-operative Organisation of Malaysia, an organisation which acts as the apex body for Malaysian co-operatives and which also aims to educate the Malaysian public on the benefits of co-operatives.

In addition, Ungku Aziz served as the chairman of the University of Malaya Co-operative Book Shop from 1968 to 2002, and remains one of its directors.

Paying a visit to a rural school

Receiving the honorary doctorate in Economy from UM Chancellor, Sultan Azlan Shah - August 9, 2005

In recognition of his efforts in this field, Ungku Aziz has been appointed as a member of the National Council of Co-operative Consultation, and of the Co-operative Development Fund Committee.

ECONOMIST AND ACADEMICIAN

As Vice Chancellor, Ungku Aziz did much to streamline the administration of the University of Malaya. Ungku Aziz was a vigorous proponent of the use of the national language in education as a unifying factor, as well as a language of academia and research, while stressing that mastery in English was essential for academic excellence. Ungku Aziz was also known for his concern for student welfare, and always remained approachable to students.

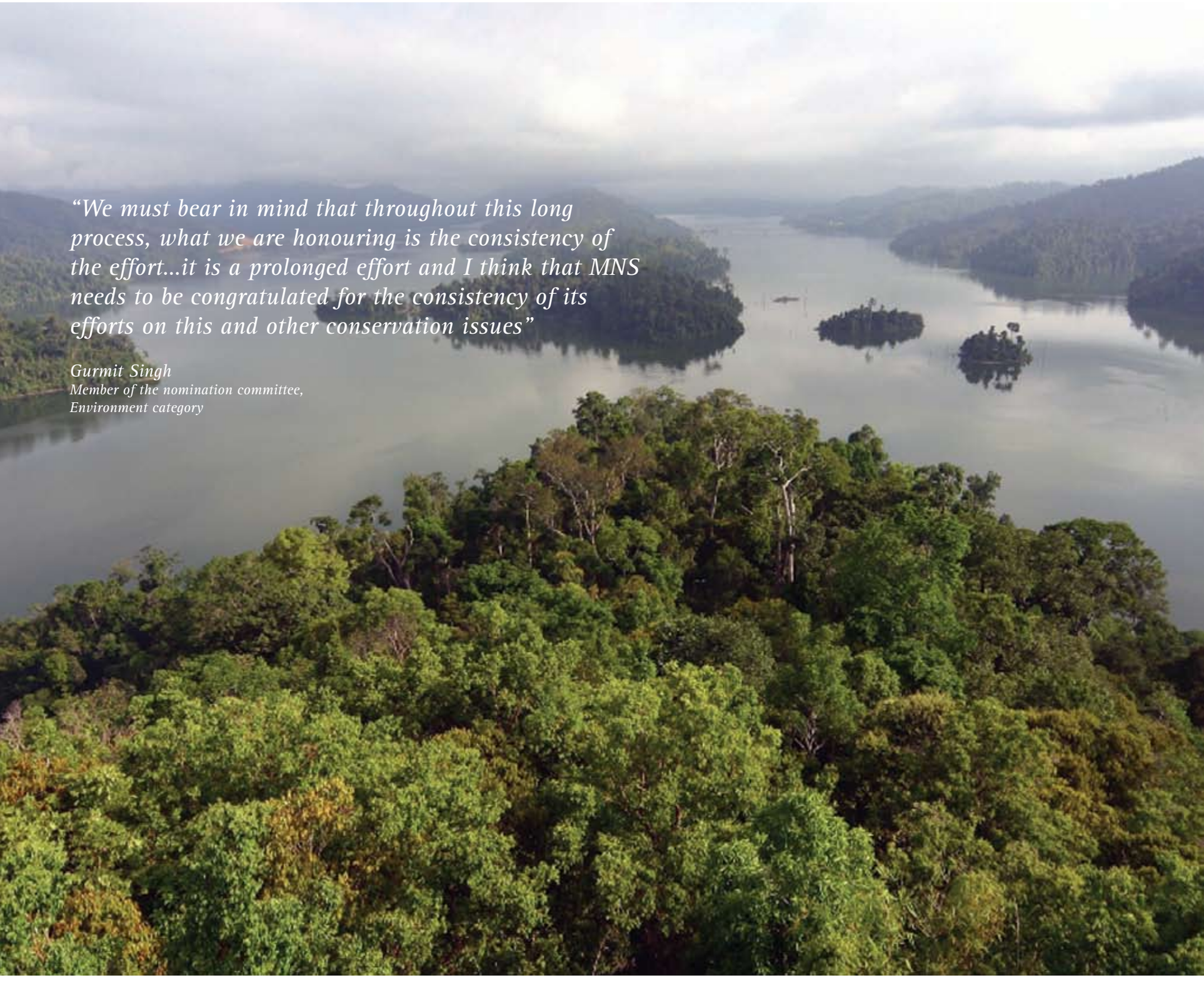
As an economist, Ungku Aziz is best known for his work on rural poverty and development, and on the productivity of labour. In the course of his research, Ungku Aziz posited that the per capita productivity of Malaysian agriculture lagged behind that of more developed nations due to a lack of technology and infrastructure, the vicious cycle of debt, and an exploitative marketing mechanism. Ungku Aziz has worked tirelessly with the Government and with others in trying to address these issues. Ungku Aziz was also one of the founding members of the Malaysian Economic Association, a think tank dedicated to discussing Malaysian economic issues.

CONCLUDING REMARKS

It would be difficult to overstate the impact of Ungku Aziz's achievements over his long and illustrious career. His work has made a tremendous difference in many aspects of Malaysian life, with his concern for the nation's poor generating many noble initiatives designed to address and alleviate their plight and suffering. Ungku Aziz has also contributed enormously to the development of education and the co-operative movement in Malaysia.

Environment

Awarded to individuals and/or organisations to honour the development, research and application of new technology and practices in renewing and protecting the environment.



"We must bear in mind that throughout this long process, what we are honouring is the consistency of the effort...it is a prolonged effort and I think that MNS needs to be congratulated for the consistency of its efforts on this and other conservation issues"

Gurmit Singh
Member of the nomination committee, Environment category

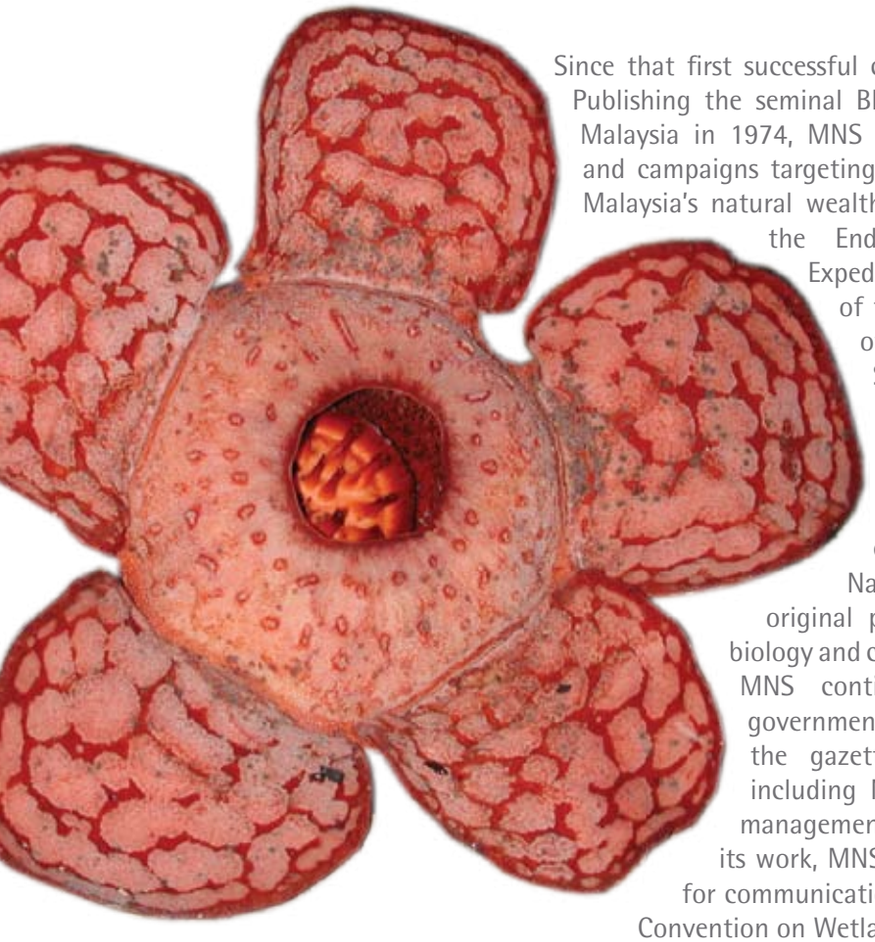
PROFILE

Malaysia is fortunate to be blessed with large tracts of tropical rainforest, which is home to a biodiversity nearly unparalleled in the world. But with rapid development and economic growth, these forests which have existed for millions of years, are at risk. Recognising the value of Malaysia's unique biodiversity there are many who continue to be relentless in their efforts to protect and nurture this heritage. At the forefront of Malaysia's conservation efforts stands the Malaysian Nature Society (MNS).

MNS has a long and venerable history, founded in 1940 as the Malayan Nature Society in Kuala Lumpur. Naturalists residing in the country at the time conceived the idea of cataloguing and publishing their collection of field notes on Malayan flora and fauna, as well as banding together to share their experiences and common interest. The first issue of the Malayan Nature Journal was published in August 1940.

Following its inception, MNS has been continuously involved in conservation efforts to protect Malaysia's natural heritage. Its first large scale conservation effort was to protect the giant Leatherback Turtle, with the campaign beginning in 1963. This resulted in a hatchery programme being formed, which is now managed by the country's Fishery Department.

A pristine stream in Belum-Temenggor

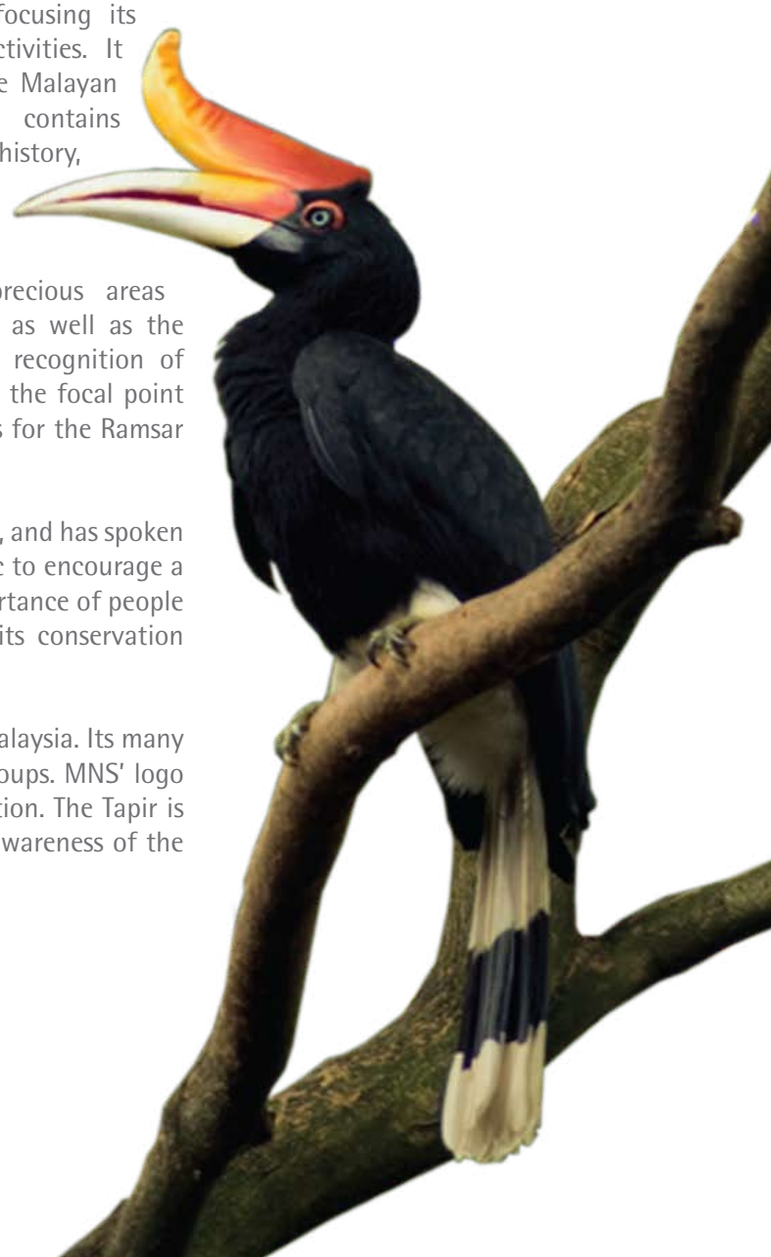


Since that first successful campaign, MNS has never looked back. Publishing the seminal Blueprint for Conservation in Peninsular Malaysia in 1974, MNS has been active in conducting studies and campaigns targeting the preservation of various aspects of Malaysia's natural wealth. Notably successful initiatives include the Endau-Rompin Scientific and Heritage Expeditions which culminated in the gazetting of that forest as a State Park by the State of Johor, the Kuala Selangor Biodiversity Survey and numerous avifaunal surveys.

MNS today remains active in conservation efforts, focusing its energies in various activities. It continues to publish the Malayan Nature Journal, which contains original papers on the natural history, biology and conservation of Malaysia. MNS continues to work with governmental bodies to facilitate the gazetting of ecologically precious areas including National or State Parks as well as the management of existing parks. In recognition of its work, MNS has been appointed as the focal point for communication and public awareness for the Ramsar Convention on Wetlands.

Left: Over 3,000 species of plants thrive in Belum-Temenggor, including three species of Rafflesia, the world's largest flower

Below: The rhinoceros hornbill is among the various species of Malaysian hornbills found in Belum-Temenggor



MNS has always been vocal about the importance of protecting the environment, and has spoken courageously about environmental issues. It believes in reaching out to the public to encourage a wider awareness of issues and participation in its campaigns. Mindful of the importance of people in habitat protection, MNS also engages with affected local communities in its conservation studies.

Today, MNS has one of the largest membership of any environmental groups in Malaysia. Its many members are active in the society as a whole or in one of its Special Interest Groups. MNS' logo is the cipan, or the Malayan tapir (Tapirus indicus), which is in danger of extinction. The Tapir is also the name of an MNS publication aimed at instilling a love for nature and awareness of the importance of conservation.

PROTECTING A NATURAL HERITAGE

Arguably, MNS' tour de force is its ongoing effort to conserve the Belum-Temenggor forests in northern Perak state. MNS was aware early on of the immense significance of Belum-Temenggor as a repository of much of Malaysia's biodiversity, and continues to work tirelessly to ensure that the region is protected from encroachment.

Members, volunteers and supporters of MNS play an integral role in the conservation of the forest

Belum-Temenggor is a tract of virgin rainforest spanning over 300,000 hectares in the northern reaches of Perak State. More than 130 million years old, its biodiversity surpasses that of the Amazon and Congo rainforests. In spite of this, the continued existence of this vital green lung remains under threat from logging and development. Much of its area was drowned by the reservoir formed by the construction of the Temenggor hydroelectric dam, and the contiguity of the forest was cut by the East-West Highway. MNS realised that something needed to be done to preserve this invaluable tract of forest.

MNS therefore embarked on two landmark scientific expeditions to Belum-Temenggor in order to catalogue the biological wonders of the region. The first expedition lasted from 1993 to 1994. In addition to confirming that Belum-Temenggor was home to sizable populations of elephants, tapirs, tigers and other endangered mammals, it was discovered that the forest was also home to the world's largest seasonal congregation of hornbills, with all 10 Malaysian species of the bird residing there. Large numbers of reptiles and birds of various species inhabit the Belum-Temenggor forests.

The expedition discovered many rare and exotic flora and fauna, including a unique species of the Rafflesia flower, a large variety of orchids and many new species of insects, arachnids and molluscs. Based on its findings, MNS concluded that Belum-Temenggor was home to some flora and fauna found nowhere else in the world and that species diversity was one of the richest in Malaysia, making conservation and proper land use imperative. The findings of the survey were published both in the Malayan Nature Journal, and in a richly illustrated book entitled 'Belum – A Rainforest in Malaysia', which helped to bring publicity to the expedition and to the irreplaceable wonders of Belum-Temenggor.

MNS subsequently published the Management Guidelines for a Proposed Belum Nature Park in 1995, which called for the creation of a central development authority under state management to set development policy and enforce sustainable resource management in the proposed Park. MNS followed up with a second expedition to Belum-Temenggor together with scientists from the University of Malaya (UM), the National University of Malaysia (UKM), the Malaysian Agricultural Research and Development Institute (MARDI) and the Forest Research Institute of Malaysia (FRIM) in 1998.

This second expedition unearthed many more discoveries, with literally hundreds of species of plants, with more than 500 different species of moss, over 300 species of gymnosperms and flowering plants, 32 edible fruit trees and 21 species of ginger being catalogued. Belum-Temenggor fauna was similarly bountiful in fauna, with 44 species of mammals and 71 species of birds recorded on the expedition.

Convinced more than ever that Belum-Temenggor was in dire need of protection, MNS commenced an extensive awareness and publicity campaign on the forest together with a coalition of like minded non-governmental organisations and concerned citizens. MNS explained how logging and development activities, while providing some economic benefit, would damage Belum-Temenggor to an extent far beyond the

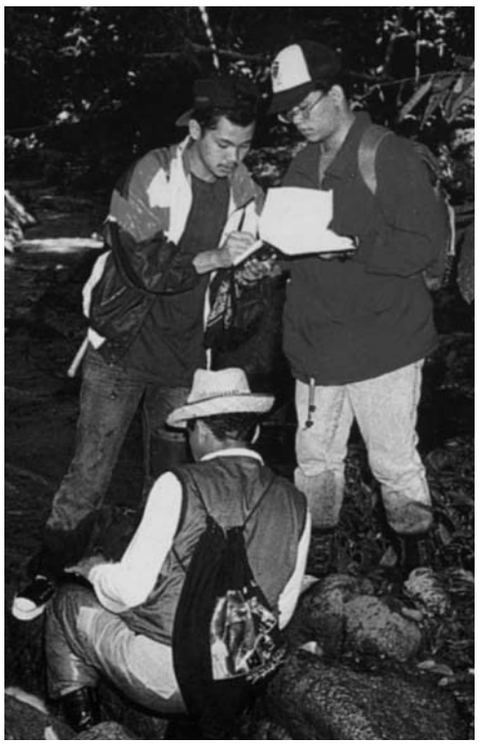
Deforestation in Belum-Temenggor has accelerated in recent years

Left: The Orang Asli in Temenggor are mainly Temiar who are settled near the edges of the forest

Below: Studying and exploring the forest's natural wonders

monetary gain accrued. MNS lobbied the Malaysian Government extensively at both Federal and State levels to preserve the forest. Additionally, MNS stated that the development of the ecotourism and pharmaceutical potential in Belum-Temenggor would far offset the loss in revenue caused by the restriction on logging. MNS' efforts led to Sultan Azlan Shah of Perak proclaiming the Reserve as Royal Belum in 2003.

In spite of the royal proclamation, Belum-Temenggor remained legally unprotected as the forest had not been officially gazetted. In order to remedy this situation, MNS launched the 'Belum-Temenggor Postcard Campaign', calling upon the Perak State Government to gazette Belum-Temenggor. The campaign was a success, attracting over 80,000 signatures. On the 10th of May 2007, the Perak Government officially gazetted 117,500 hectares of the forest as the Royal Belum State Park, with logging in Belum-Temenggor to cease by 2008.



CONCLUDING REMARKS

MNS has accomplished much in the protection of Belum-Temenggor. After an extremely long and hard fought campaign, the society's tireless work has resulted in saving a significantly important part of Malaysia's natural heritage for the enjoyment and benefit of Malaysians for many years to come. This group of environmentally concerned citizens will therefore remain as an inspiration to Malaysians who are ever conscious, due in large part to MNS' efforts, of the necessity of conserving Malaysia's rainforests.

Health, Science & Technology

Awarded to individuals and/or organisations to honour the creation, development, support and application of new and innovative technology that improve the lives of people everywhere.

"The courage shown by the Team was exemplary in dealing with an unknown disease that was infectious, rapidly fatal and with no known treatment then."

Tan Sri Augustine Ong
Member of the nomination committee, Health, Science & Technology category

Some members of the Nipah Encephalitis Team

NIPAH ENCEPHALITIS INVESTIGATION TEAM
UNIVERSITY OF MALAYA

PROFILE

In 1998, during the height of the financial crisis gripping Malaysia, a mysterious disease started to spread across the country. Beginning in pig farms in Perak, the disease soon spread to the States of Negeri Sembilan and Selangor. Young and healthy men working on pig farms started to succumb, collapsing with fever and delirium. Rendered comatose, the victims started to die. With entire villages being abandoned, the army stepping in to slaughter livestock and reducing farms to rubble, a state of panic began to grip the nation. All methods attempting to control the spread of the disease failed.

At that point in time, a team of intrepid doctors and scientists from the University of Malaya's Faculty of Medicine came to the rescue. The Team, led by Professor Dr Tan Chong Tin, a neurologist, was comprised of members with all of the different specialisations necessary to study and combat the disease.

VIROLOGISTS:

- Dr Chua Kaw Bing
- Dr Lam Sai Kit
- Dr Sazaly Abu Bakar
- Dr Chang Li Yen

NEUROLOGISTS

- Dr Tan Chong Tin *Leader*
- Dr Goh Khean Jin
- Dr Chong Heng Thay
- Dr Chew Nee Kong
- Dr Tan Kay Sin
- Dr Vimalan Ramasundram

Some members of the
Nipah Encephalitis Team

Dr Patrick Tan and Professor CT Tan in an ICU unit, where they spent much time monitoring Nipah Encephalitis patients

PATHOLOGISTS

- Dr Wong Kum Thong

RADIOLOGISTS

- Dr Sazilah Ahmad Sarji
- Dr Norlisah Ramli

INFECTIOUS DISEASES

- Dr Adeeba Kamarulzaman

INTENSIVE CARE

- Dr Patrick Tan SK

These doctors rose above their disparate backgrounds and specialisations, and came together as academicians and professionals to tackle a disease which was rapidly threatening to become a pandemic. They succeeded beyond expectations.

TRACKING A NEW DISEASE

In the initial stages of the outbreak, the disease was thought to be Japanese Encephalitis (JE), where the virus would use pigs as incubators and spread to humans via an insect vector. Accordingly, measures were taken to combat JE, such as the vaccination of the pigs and villagers, and insecticide fogging of pig farms and neighbouring villages. However, these measures failed to halt the spread of the outbreak.

The team's radiologists imaged and studied the virus' effects on patients

While the symptoms were superficially similar, there were differences between JE and this perplexing disease. For one, the victims did not fit the JE profile. JE tended to attack the very young and the very old, with no discernible pattern of infection. This disease, however, attacked healthy young men, with the infection confined to those who had been in contact with infected pigs. The pigs themselves exhibited signs of illness, whilst a pig infected with JE would not manifest any symptoms of the disease. In addition, many of the victims had been inoculated against JE, with the infection confined to those who had been in close contact with pigs, and the geographical clustering of the victim cannot be explained by a disease spread via mosquito.

A colony of Pteropus fruit bats. The team discovered that these wild fruitbats are the reservoir hosts of the virus

These discrepancies necessitated further investigation. Already there were suspicions that the epidemic was not typical of JE; however, the prevailing opinion was so strong that objections were generally subdued. The Team tried to persuade families of deceased victims to allow further examination of the bodies. While many were understandably reluctant, several consented, and the first samples arrived in the testing laboratory in March 1999. Dr Chua started to receive the first samples of the cerebrospinal fluid in the laboratory in March 1999. He locked himself in the laboratory for a week, while conducting various tests on the samples.

He found something unusual in the culture. After coming up with negative results against a plethora of known viruses, Dr Chua was convinced that this was a previously unknown virus. The virus sample was taken to the Centers for Disease Control and Prevention in the United States for further identification. The virus was subsequently found to be related to the Hendra virus, which caused outbreaks of pneumonia and encephalitis in Australia. The novel virus was later named Nipah, the name being derived from Kampong Sungai Nipah, which was one of the villages affected by the outbreak.

Further studies by the team helped to show that the large *Pteropus* fruit bats was the reservoir of the Nipah virus. The El Niño weather phenomenon which hit Malaysia hard during the 1997-1998 period, had driven the Pteropus bats from their natural habitat to fruit trees situated in the vicinity of the pig farms in Perak. Half eaten fruits by the bats were then fed to the pigs, where the virus multiplied and spread from pig-to-pig and subsequently to humans.

In the meantime, hospitals were inundated with patients infected by the Nipah virus, stretching hospital capabilities almost to breaking point. When the Seremban hospital, which was the nearest major hospital to the outbreak, could not cope with the sudden influx, many patients also sought treatment at the University of Malaya's Teaching Hospital.

Left: Team members also served as WHO consultants for the Nipah outbreak in Bangladesh in 2004. Dr KB Chua and Prof CT Tan are standing on the right

Below: An electron microspic image of the Nipah virus

Management of patients was very much a team effort, with the neurologists as chief physicians. The radiologists were learning to identify the telltale signs of infection from the MRI scans, and pathogenesis, pathology, serology and EEG studies being conducted. Intensive Care Unit (ICU) equipment, ventilators and nurses were assembled, and surgeries postponed to accommodate the increasing number of patients requiring ventilation. As the risk of infection spreading from the patients to the health care workers were unknown, precautionary measures were formulated to prevent the spread of infection to medical staff and relatives. It was later discovered that human-to-human transmission of the Nipah virus was indeed possible and was an important mode of transmission during the Nipah encephalitis outbreaks in Bangladesh and India.

Having no other option, it was decided that ribavarin, an expensive antiviral medication for a therapeutic trial. To the delight of the Team, ribavarin treatment proved to be successful in reducing the mortality rates by 36% as compared to patients who had not been treated with the drug.

With the identification of the new virus, new strategies were devised to combat the continuing outbreak. Vaccination and insecticide fogging were stopped and pigs were culled. With this the outbreak came to a halt, and the epidemic was finally contained. In the meantime, the meticulous observations and investigations of the patients and

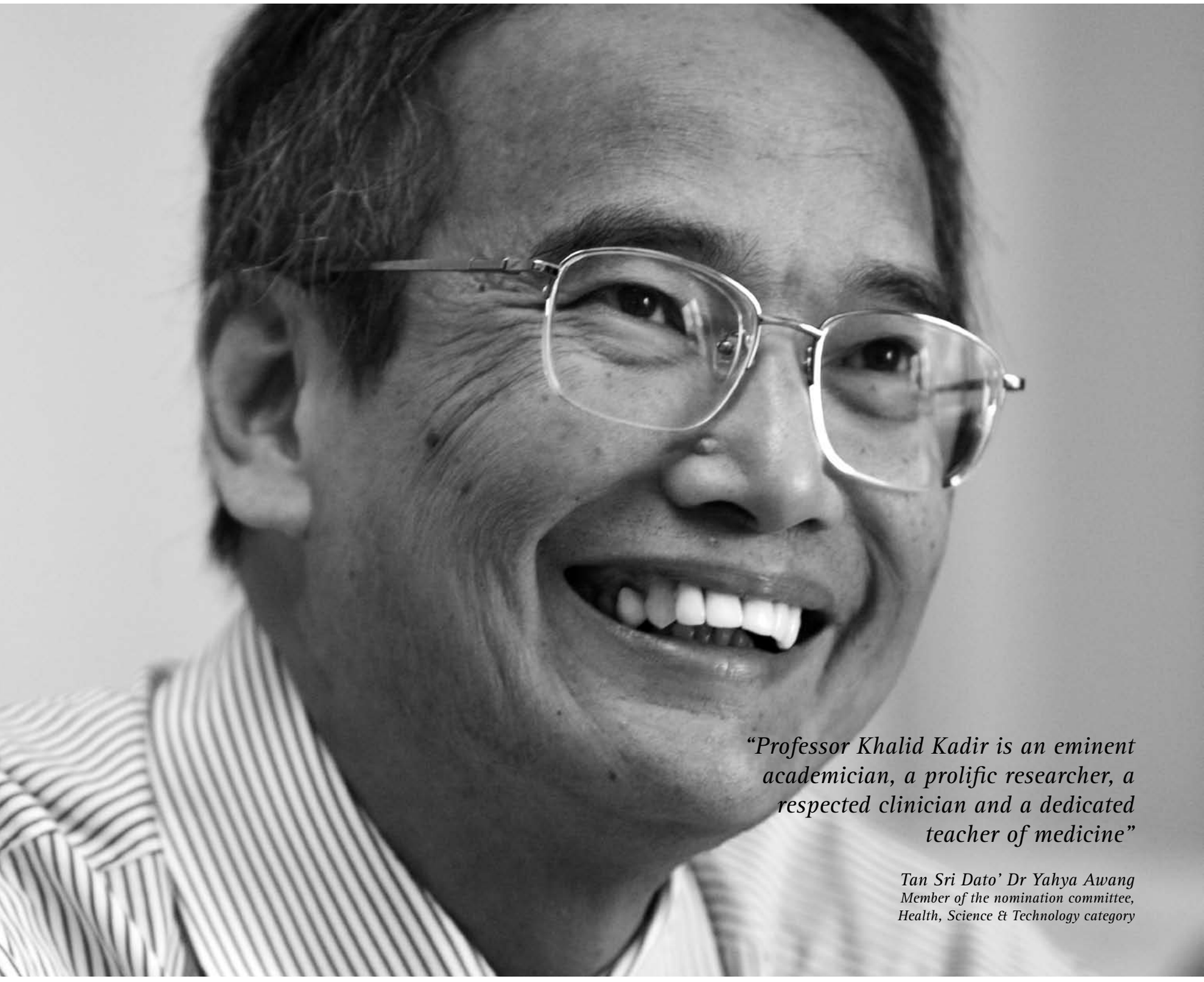
Prof KT Wong visiting a village in Bangladesh with Nipah Encephalitis outbreak

related works gave rise to many papers published in peer review medical journals, such as Science, the Lancet and New England Journal of Medicine. Team members were also offered lecture invitations and given awards in recognition of their efforts.

Since the outbreak in Malaysia, Bangladesh and India have experienced ten Nipah encephalitis outbreaks from 2001. The knowledge accumulated and experienced gained by the Team in the Malaysian outbreak have helped to cope with the outbreaks in the Indian sub-continent. Some members of the Team were also invited by the World Health Organization to help investigate the 2004 outbreak in Bangladesh. As the habitat of the *Pteropus* bats extends across most of the Old World's tropical zone, and increasing number of countries have found bats to be reservoirs of the Nipah virus, Nipah encephalitis has become an important emerging encephalitis.

CONCLUDING REMARKS

The Nipah Viral Encephalitis Investigation Team displayed heroic courage in dealing with the epidemic. Risking infection to themselves and their families, this group of dedicated and passionate doctors selflessly sought to combat this disease, feeling that their professional duty overrode any personal considerations. Their achievement is also a great source of pride for Malaysia, as an entirely Malaysian team was instrumental in researching and combating a previously unknown virus, and in doing so made a significant contribution to the corpus of global medical knowledge.



"Professor Khalid Kadir is an eminent academician, a prolific researcher, a respected clinician and a dedicated teacher of medicine"

Tan Sri Dato' Dr Yahya Awang
Member of the nomination committee, Health, Science & Technology category

PROFESSOR DATO' DR KHALID BIN TAN SRI ABDUL KADIR

PROFILE

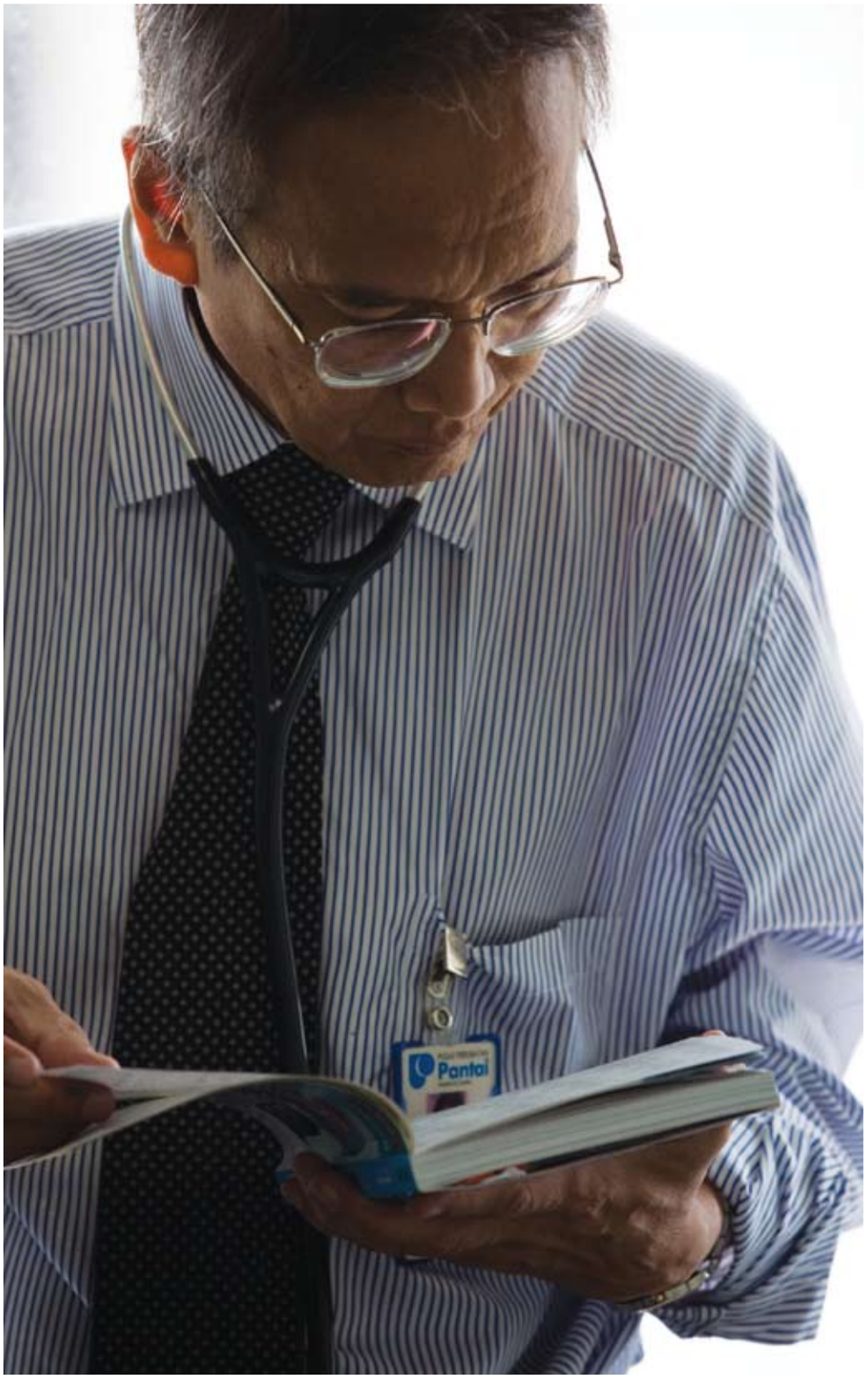
Professor Dato' Dr Khalid bin Tan Sri Abdul Kadir was born in 1948, in Nong Chik, Johor.

Professor Khalid excelled academically even at an early age. Securing the Silver Medal for Best Student from Sultan Abdul Hamid College after completing his lower secondary education, Professor Khalid attended the Royal Military College in Sungai Besi, completing his upper secondary education and winning the prestigious Commandant's Prize for Top Student.

Professor Khalid commenced his medical studies at Monash University, Australia, graduating with first-class honours in B.Med.Sc. in 1973 and first class honours in MBBS in 1975, winning the Henry Hindlip Green Prize in Clinical Medicine and the Harriet Power Prize in Medicine.

He worked at the Alfred Hospital and Prince Henry's Hospital, Melbourne, where he trained for his FRACP in endocrinology, awarded in 1982 and Ph.D in Medicine awarded in 1984.

Professor Khalid commenced teaching at University Kebangsaan Malaysia (the National University of Malaysia, or UKM) as a lecturer in 1982. Professor Khalid's career at UKM was nothing short of a meteoric rise with his promotion to Associate Professor in 1984 and Head of the Department of Medicine in the following year. In 1990, Professor Khalid achieved full professorship and was appointed Dean of the Faculty of



Medicine, UKM. He later became the director of the UKM Hospital (HUKM) in 1996, and was made Senior Professor of Medicine in 2000. Professor Khalid retired in 2004 and was made Professor Emeritus.

In a return to his educational roots, Professor Khalid joined Monash University Malaysia as Professor of Medicine. In 2006, he was appointed as the Head of the Johor Clinical School, Monash University Malaysia. In addition, Professor Khalid is also Consultant Endocrinologist at Pantai Medical Centre in Kuala Lumpur.

Throughout the course of his brilliant academic career, Professor Khalid has amassed many accolades in recognition of his contribution to medical science. He holds memberships in many local and international medical and endocrinological organisations, as well as in various academic committees.

Professor Khalid is passionate about his work as a doctor, as a researcher and as a teacher. He was instrumental in the setting up of the research school in Hospital UKM (HUKM), and believes in the importance of research. Under his leadership, support and encouragement, research in the faculty thrived.

Professor Khalid's concern for the welfare and education of his charges is dear to his heart. He has continually stressed the importance of preparing the next generation to take over as the vanguard of research and education, and has supervised and encouraged many students in their postgraduate research work, including many PhD candidates. In recognition of his dedication as a teacher and researcher, Professor Khalid has won the Best Researcher and Best Teacher awards from UKM.

When not conducting research, teaching students or treating patients, Professor Khalid enjoys fishing and listening to classic rock music. Professor Khalid also indulges in his hobby of collecting duck figurines, believing that the duck, a symbol of a migratory spirit that never fails to return home after each journey, is a creature that is adaptable to any environment.

Professor Khalid is married to Datin Dr Norella Kong Chiew Tong, a lecturer in nephrology, and is the proud father of three sons. The couple have three grandchildren.

CHAMPIONING RESEARCH

In the course of his extensive research, Professor Khalid has made many significant contributions to the field of endocrinology. He has been selected to receive the Merdeka Award for his contributions to two areas of endocrinology, namely his work on the study and understanding of diabetes, and the relationship between hormones and stresses in various tissues.

Wall of achievements.
Prof Khalid is a highly qualified endocrinologist and has obtained many international awards to his name

DIABETES

After returning from Australia, Professor Khalid took a keen interest in addressing the rapidly rising cases of diabetes prevalence in Malaysia. Motivated by his research interest, Professor Khalid sought to understand why diabetes was becoming more widespread over the last two decades. In particular, he undertook research to investigate the correlations between diabetes and modern lifestyle.

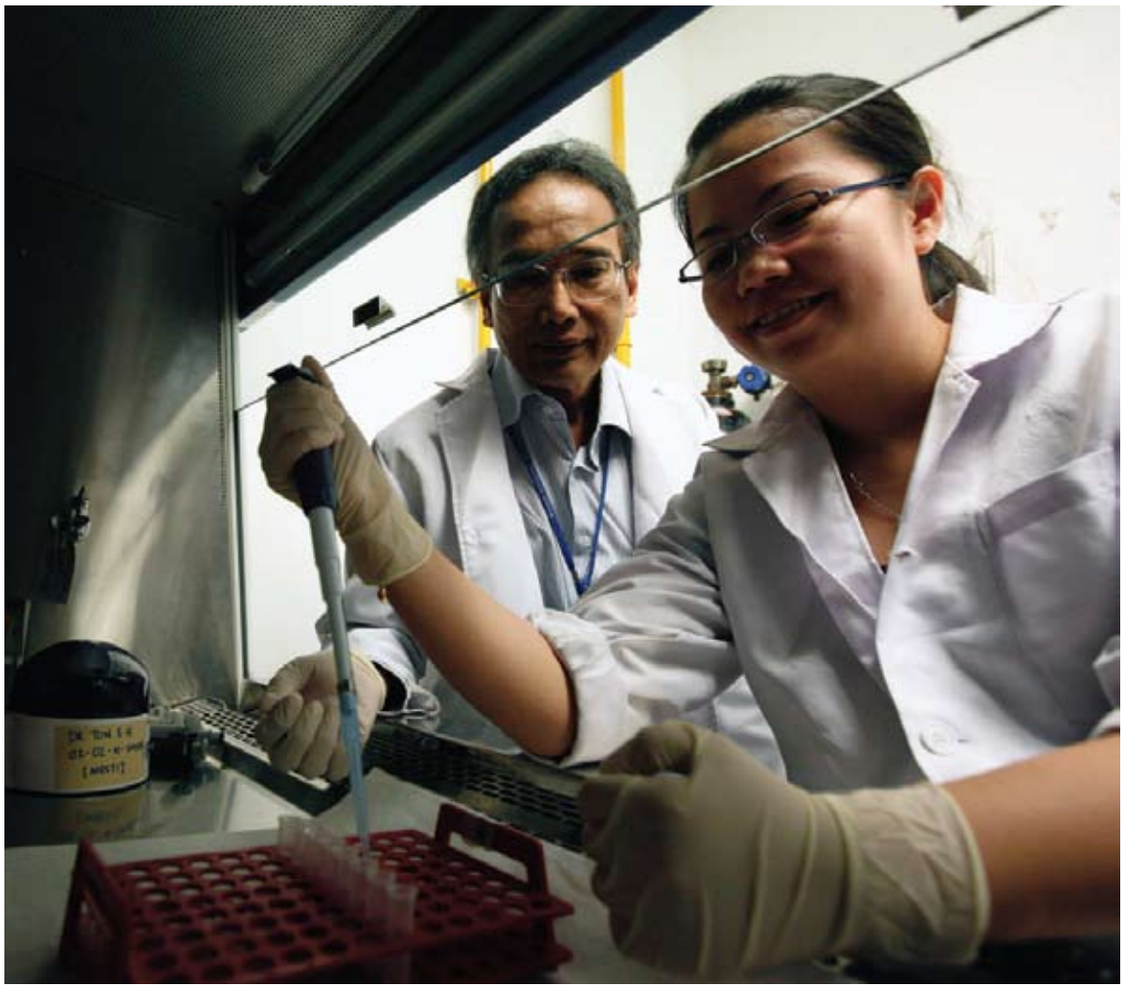
Professor Khalid then became actively involved in diabetes epidemiology research. This led to work on clinical drug trials on diabetes, obesity and dyslipidaemia.

Professor Khalid's active involvement in diabetes research is also evident in the investigation of the increasing occurrence of diabetes in younger age groups. He spearheaded the Young Diabetes Study (YDP) from 1996 to 1999. The main objective of the study was to look at the health status of young Malaysian adults diagnosed with diabetes before the age of 40. Early onset of diabetes is now increasingly common. About 1,000 patients were recruited by his collaborators at the various health centres around the country for the study which resulted in generating nine publications in peer-reviewed journals.

Another landmark diabetes study carried out concurrently with the YDP study was the Asian Young Diabetes Research Study (ASDIAB) to investigate the etiology (study of causes of diseases), pathophysiology and natural history of diabetes in young Asian diabetics. In 2003, together with his international collaborators from China, Hong Kong, India and Singapore, he published the findings in the Diabetic Medicine journal.

Professor Khalid continues to champion diabetes research even after his retirement. Despite being occupied with his private practice and teaching responsibility at the Monash University Malaysia, he accepted an offer from his old teammates to jointly participate in a research project proposed by the Ministry of Health Malaysia in 2007. The research on Metabolic Syndrome in Malaysia (MSSM) is now near completion and it is expected to produce a wealth of data that is much needed by the Ministry of Health to stem the rising epidemic of diabetes and its complications in this country.

In addition to his laboratory work, Professor Khalid has also set about educating the Malaysian public on the dangers of the disease through articles in the media.



Professor Khalid believes in the importance of educating the next generation of doctors and researchers, instilling in them a love for study and research

Malaysian endocrinologists in 1982. Prof Khalid is standing at the far right

RELATIONSHIPS BETWEEN HORMONES AND STRESS

Having been interested in the subject since his undergraduate days, Professor Khalid has devoted much of his research career to studying how stress affects the human body. Dato' Khalid's research group has investigated the mechanism of stress, the nature of stress either acute or chronic, physical and mental stresses as well as the hormones and enzymes involved during and after exposure to stress.

Beginning with corticoid hormones, Professor Khalid went on to explore the effects of endorphins and other enzymes in regulating bodily functions and metabolism during periods of stress. He has also researched methods to counter the potentially deleterious reactions of stress derived hormones in the human body.

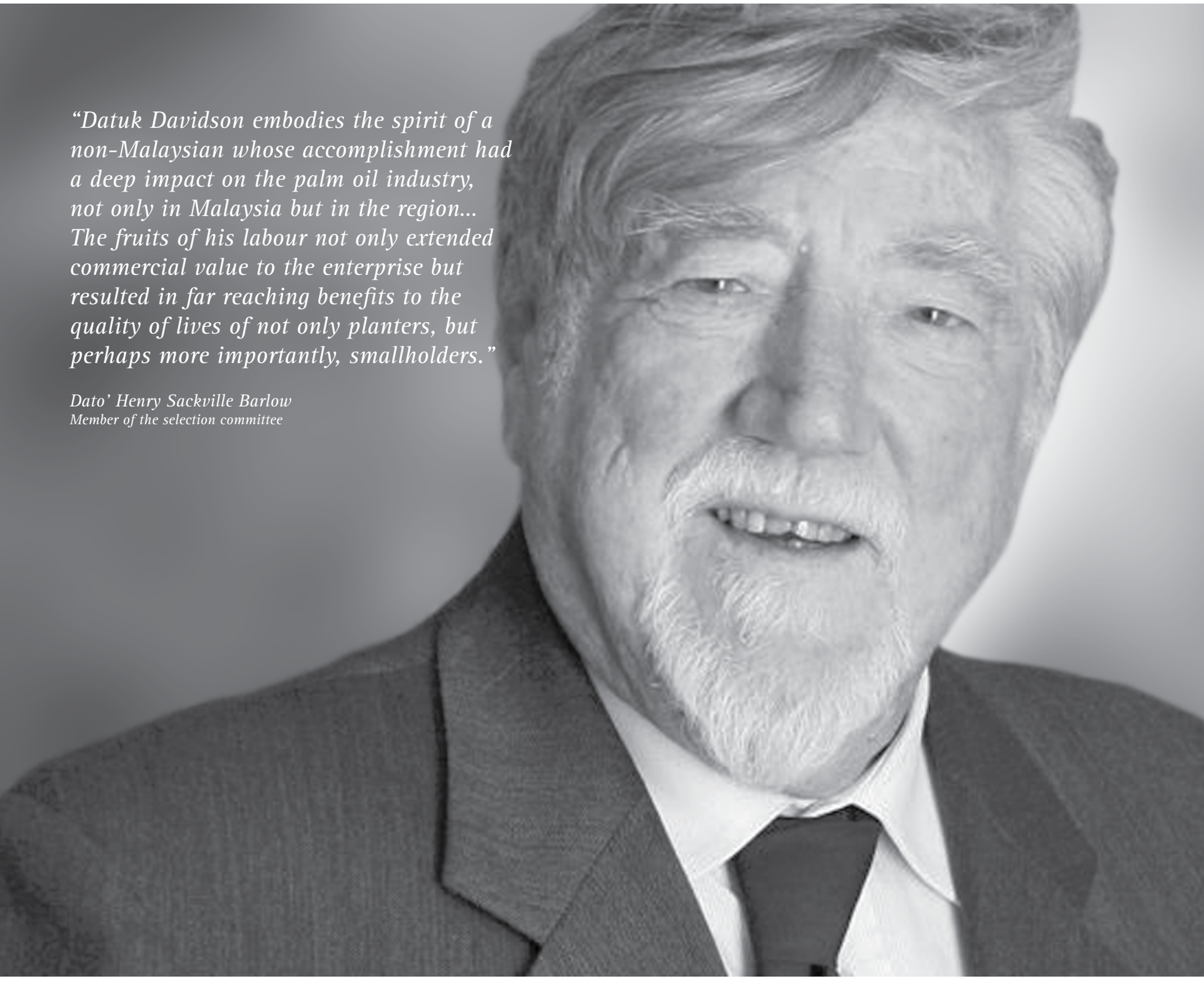
In addition to his vast contributions to the corpus of work in this field, Professor Khalid has also encouraged his students interested in endocrinology to conduct their own research on the subject. He has supervised much postgraduate endocrinology research, and to this day continues to conduct research on the subject, particularly in the area of stress and steroids and 11 beta hydroxysteroid with his fellow lecturers at Monash University Malaysia,

CONCLUDING REMARKS

Professor Khalid's numerous achievements have had a deep and lasting impact on Malaysia and Malaysian society With nearly 300 published articles on diabetes and endocrinology, and with his continuing research efforts, Professor Khalid has significantly improved the understanding of endocrinology. His research on the efficacy of diabetes treatment and monitoring of diabetes in Malaysia have aided in formulating strategies to combat the disease. His work has also contributed to the development and implementation of national strategies and programmes to prevent and control diabetes, and reduce its risks. Professor Khalid's epidemiology research and clinical drug trials, as well as research on insulin resistance have aided in creating new treatments for diabetes.

Outstanding Contribution to the People of Malaysia

Awarded to a citizen of any nationality or foreign organisation to honour substantial contribution to Malaysia or to the lives of Malaysians.



"Datuk Davidson embodies the spirit of a non-Malaysian whose accomplishment had a deep impact on the palm oil industry, not only in Malaysia but in the region... The fruits of his labour not only extended commercial value to the enterprise but resulted in far reaching benefits to the quality of lives of not only planters, but perhaps more importantly, smallholders."

Dato' Henry Sackville Barlow
Member of the selection committee

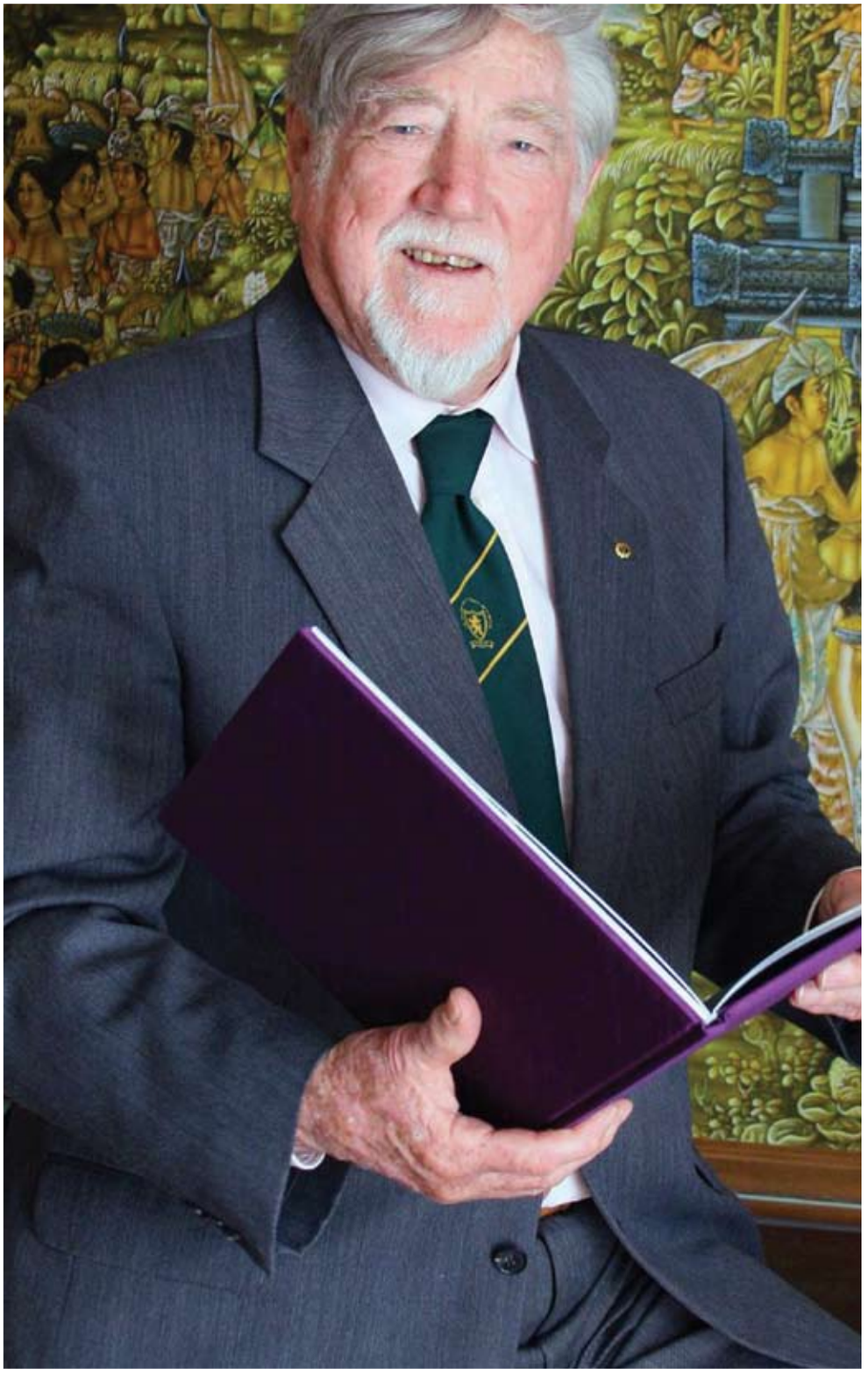
DATUK LESLIE DAVIDSON

PROFILE

Datuk Leslie Davidson was born in Aberdeen, Scotland in 1931. Receiving his early education in Gordon's College, Datuk Davidson served his compulsory National Service period as a young officer in Kenya. Upon completion of his National Service, Datuk Davidson signed up with Unilever, a global consumer products company, and was sent halfway across the world to the Pamol Estate in Kluang, Johor, during the height of the Malayan Emergency in 1951.

In the wake of the Emergency, Datuk Davidson was several time mistakenly reported as having been killed. He was later transferred to Cameroon and then to Nigeria in West Africa in 1957. It was in this ancestral home of the oil palm that Datuk Davidson was to make a discovery which would have a deep impact on oil palm cultivation in Malaysia and the region.

In 1960, Datuk Davidson returned to South East Asia, and was posted to Sabah to develop the palm oil industry in that state, which was very much in its infancy at the time. Datuk Davidson was an ideal choice due to his experience in Africa and also his ability to converse fluently in the Malay and Hakka languages. Travelling inland, Datuk Davidson established the Tungud Oil Palm Estate, the first oil palm plantation in Sabah. He endured many hardships and calamities during his nine year stint at Tungud, including having the attap shed where he and his family lived washed away by flooding in 1963. In spite of these misfortunes, Datuk



Davidson managed to expand Tungud into a large plantation spanning over 20,000 acres. His experiences in Tungud encouraged him to write a book, "East of Kinabalu", about his life at the plantation and the challenges he faced there as a planter.

Datuk Davidson was transferred back to Kluang in 1970, where he was appointed chairman of two of Unilever's plantations. During this period, Datuk Davidson served on several national committees looking into issues that affect the plantation industry. He returned to Britain in 1974, having been promoted to Vice Chairman of the Unilever International Plantations Group, becoming Chairman in 1982. During his stint in London, Datuk Davidson was also Chairman of Unifield in Bedford, the first large-scale tissue culture unit; Chairman of the Tropical Growers Association; and the first Chairman of the International Centre for Plantation Studies in Silsoe.

Following his retirement from the Unilever Chairmanship in 1992, Datuk Davidson was appointed as a board member of Bertam Holdings, retiring as Deputy Chairman in 2001.

Datuk Davidson's work has generated many accolades, including the 1992 World Vision Award for Development Initiative for his contribution to sustainable development, and he was conferred the title of Datuk by the Sabah State Government.

BOOSTING OIL PALM PRODUCTION

In the early years of the palm oil industry in Malaysia, the average plantation was a very primitive affair. Many of the processes and equipment which the industry now takes for granted had not been developed at that point in time, which resulted in a very labour intensive and inefficient effort. One of those processes was the pollination of oil palms.

Oil Palm bunches prior to insect pollination
Left: Typical unpollinated bunch
Right: Bunch after hand pollination

Pollination of oil palms in Malaysia was originally carried out by hand, which was laborious, inefficient and time consuming. At the Tungud estate in Sabah alone, there were over 500 people, mostly young women, engaged in pollinating the oil palms on a daily basis.

Datuk Davidson, because of his years spent in Cameroon and Nigeria, had noticed that in West Africa, pollination of oil palms was extremely efficient, approaching 100%, even during the rainy season which in Malaysia would have put a halt to any manual pollination. Datuk Davidson had at the time noticed that there were many insects clustered about the oil palm flowers, a phenomenon that was absent in the Malaysian plantations.

Convinced that the oil palm's pollinating agent was an insect, instead of wind as previously thought, Datuk Davidson started lobbying for studies to be conducted on the subject. Obtaining backing from Unilever, he approached the Commonwealth Institute for Biological Control (CIBC), which agreed to send Dr Rahman Syed, an eminent Pakistani entomologist, to investigate.

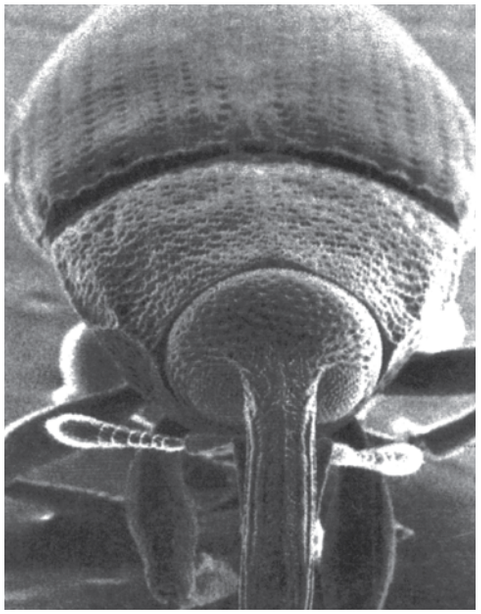
Dr Syed and members of the CIBC spent several years in Unilever estates both in Malaysia and in Cameroon studying pollination patterns. They noticed that the plantations in Cameroon had a well developed ecology of insects adapted to the pollination of oil palm. The most effective pollinator was found to be a weevil known as Elaeidobius kamerunicus. Extensive testing was done to investigate whether there were any adverse effects to the oil palms or to the general environment as a result of the weevil's presence. Happily, none were found.

Following this discovery, Datuk Davidson then sought to import a batch of weevils from Cameroon to Malaysia via the United Kingdom. After several months of quarantine both in London and in Kuala Lumpur, the insects were released in Unilever's Mamor Estate in Kluang, Johor, on 21 February 1981.

The introduction of Elaeidobius kamerunicus proved to be an amazing success. Yields increased tremendously, with the Minister of Primary Industries at the time saying that the presence of the weevils resulted in an increase of 400,000 tonnes of palm oil and 300,000 tonnes of palm kernels in the 1981-1982 period alone. The simplification of pollination was one of the key factors enabling the phenomenal growth of the palm oil industry in Malaysia, which is now a key contributor to the Malaysian economy. Elaeidobius kamerunicus has subsequently been introduced to other countries in the region, including Indonesia, Papua New Guinea, the Solomon Islands and Thailand.

In addition to positively impacting productivity, the weevils proved a boon to smallholders who did not have the means to manually pollinate their oil palms. This resulted in increased competitiveness and productivity in all sectors of the palm oil industry.

A fresh bunch



Elaeidobius kamerunicus

Datuk Davidson with his daughters Catriona and Fiona on a bulldozer

CONCLUDING REMARKS

Datuk Leslie Davidson has done much for the palm oil industry in Malaysia. From his early days in the country, he has shown a tenacity and a dedication to work through even the most dangerous and challenging situations. His long years in Malaysia have resulted in a keen understanding of local plantations and culture with a breakthrough discovery that revolutionised the development of the local oil palm industry.

MERDEKA
AWARD

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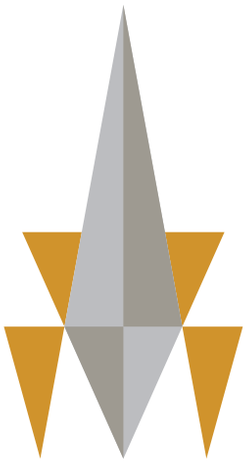
Outstanding Contribution to the People of Malaysia
Tan Sri Dato' Ernest Zulliger
Tan Sri Dato' Megat Zaharuddin Megat Mohd Nor
Tan Sri Razak Ramli

The Logo and Trophy



MERDEKA
AWARD

Designed by Dato' Johan Ariff, the trophy is a three dimensional version of the Merdeka Award logo. It expresses convergence and ascension, the same qualities celebrated in the achievements of the Merdeka Awards winners. The trophy also represents environmental concerns in the form of a plant shoot *Rebung*, transparency ethics, and the glorious five decades.

An Artistic Vision of Excellence

This Latiff Mohidin sculpture incorporate the kinetic element of a rotating ball symbolising freedom, the sculpture rests on a granite base denoting strength and fortitude. The piece also incorporates the traditional elements of *Sulur Bayur* underscoring heritage and *Pucuk Rebung* signifying excellence. The sculpture, cash award trophy and scroll are presented to the Merdeka Award recipients.

An initiative of