



UWI TODAY

THE UNIVERSITY OF THE WEST INDIES · ST. AUGUSTINE CAMPUS

SUNDAY 6TH MARCH, 2011



WATCH YOUR WAIST

That Big Belly will Kill You

In this issue, we continue where we left off in January, looking at some of the new research and the researchers in the area of chronic non-communicable diseases. Known as CNCD, they account not only for

the majority of deaths in the region (and we are high in the world rankings for incidence), but they account for almost two-thirds of national health budgets. We focus on ailments falling under the broad heading of

the Metabolic Syndrome. There is much we do not know, but have the power to change. It's all in our special focus on the state of health.

HEALTH - 08

Gut Buster

■ Move More, Consume Less



MEDICINE - 10

Theo Poon-King

■ The Da Vinci of Medical Research

RESEARCH - 13

Cancer Statistics

■ Make reporting mandatory



SPECIAL ISSUE

The UWI South Campus

■ Launch of The UWI St. Augustine South Campus Debe /Penal



■ CAMPUS NEWS

Main Library becomes THE ALMA JORDAN LIBRARY

During the course of the celebrations to mark the fiftieth anniversary of the St. Augustine Campus of the UWI in 2010, it was decided to name certain buildings in recognition of staff members who made an outstanding contribution to the development of the campus. Seven new names were approved and official ceremonies are planned for each building.

As of February 28, the Main Library officially became **The Alma Jordan Library**, in celebration of **Dr Alma Jordan**, who was Campus Librarian at The Main Library from 1960 to 1989, serving also as University Librarian from 1982 to her retirement in 1989. The unveiling ceremony also offered glimpses of Dr. Jordan's stewardship at the Library. There was also a physical and virtual exhibition of the construction and development of the Library.

Alma Theodora Jordan was born in Tunapuna in 1929, and graduated with honours with a BA in Spanish from London University before pursuing library studies which culminated with a Doctorate of Library Science from Columbia University in 1966. She has written extensively on Caribbean librarianship, been a foundation member of the national library association and first president (1969-70) of the Association of Caribbean University Research and Institutional Libraries (ACURIL). A scholarship has been instituted in her honour. She has served on library boards and committees nationally, regionally and internationally.

She is the recipient of many medals and awards, including the Hummingbird Medal (Gold) in 1989 and was inducted into the Hall of Excellence of her alma mater, St Joseph's Convent, Port of Spain in 2001.



Dr Alma Theodora Jordan

THE NEW DESIGNATIONS FOR THE ST AUGUSTINE BUILDINGS ARE:

- **The Alma Jordan Library**
(Main Library)
- **The Lloyd Brathwaite Building**
(Student Administration Building)
- **The Ken Julien Building**
(Faculty of Engineering Block 1)
- **The Desmond Imbert Building**
(Faculty of Engineering Block 4)
- **The Max Richards Building**
(Faculty of Engineering Block 13)
- **The George Alleyne Building**
(New building constructed for the Health Economics Unit)
- **The Arthur Lewis Hall of Residence, St. John Road**
(St. John Road Student Accommodation)



FROM THE PRINCIPAL

Welcome to The UWI St Augustine - South Campus



The **St. Augustine Campus** of The UWI celebrated an historic occasion on February 24 with a ceremony to commemorate the dedication of 100 acres of land for the establishment of The UWI St. Augustine - South Campus, Penal/Debe. The presence of the President of Trinidad & Tobago, His Excellency Professor George Maxwell Richards, the Honourable Prime Minister, Mrs. Kamla Persad-Bissessar, the Chancellor of The UWI, Sir George Alleyne and Minister of

Science, Technology and Tertiary Education, Senator the Honourable Fazal Karim, among other distinguished guests, is testament to the magnitude of this development.

The allocation of these lands on the outskirts of San Fernando was approved in October 2010 by the Government of Trinidad and Tobago to help broaden access to tertiary level education. This is a vision that we share and I thank the Government for its support. Together with the direction set in the National Budget 2010, this will be the platform for expanding the Campus into the south. This expansion is supported by a demand needs assessment study whose findings highlighted that a second Campus located in south Trinidad is essential for south-based industries and businesses. I have been steadily taking this initiative forward through the University's approval processes and through consultations with stakeholders and am truly pleased that the UWI Strategy Committee endorsed this leap for our University to establish another location for the UWI St. Augustine Campus at Penal /Debe.

One of my objectives as Campus Principal is to drive the expansion of the UWI St. Augustine Campus even further, beyond south Trinidad, and Tobago, where we already have a presence, and to make our programmes accessible to neighbouring countries via online delivery and e-learning.

Extending our reach beyond our original perimeter, established some fifty years ago in St. Augustine, will be the path towards creating a knowledge-driven society and a more competitive country and region.

CLEMENT K. SANKAT
Pro Vice Chancellor & Principal

EDITORIAL TEAM

CAMPUS PRINCIPAL
Professor Clement Sankat

DIRECTOR OF MARKETING
AND COMMUNICATIONS
Mrs. Dawn-Marie De Four-Gill

EDITOR
Ms. Vaneisa Baksh

CONTACT US
The UWI Marketing and Communications Office
Tel: (868) 662-2002, exts. 2013, 2014
Or email: uwitoday@sta.uwi.edu

■ ENVIRONMENT



PHOTO: LEE ANN BEDDOE

Michelle Cazabon-Mannette with a Hawksbill turtle in Tobago waters

BIODIVERSITY WINNERS

Last year, 2010, was recognised as the International Year of Biodiversity (IYB), and its focus was raising public awareness of the importance of biodiversity and the consequences of its loss. It also sought to promote the engagement of the public and other stakeholders in the implementation of the Convention on Biological Diversity.



Dr. Judith Gobin

To highlight related scientific research being conducted in Trinidad and Tobago, the Ministry of Housing and the Environment in collaboration with The UWI and the EDULINK Biodiversity Project convened a Research Poster and Paper Symposium in the commemoration of the 2010 International Year of Biodiversity in November 2010. This was meant to give decision makers a sound understanding of some of the critical issues affecting our national biodiversity based on scientific research,

so they could develop more effective strategies to address these problems.

Biological diversity is essential, as it provides food, fuel, medicine and other resources, yet it is being lost at an accelerated rate, mainly due to human activities. These activities impoverish all people and weaken the ability of the living systems to resist growing threats, such as those from climate change. People all over the world are working to safeguard this irreplaceable natural wealth and reduce biodiversity loss. This is vital for the current and future human wellbeing. To even further highlight the importance of biodiversity, on the heels of the 2010 International Year of Biodiversity, 2011 has been declared the International Year of Forests, and during this year the importance of forest biodiversity will specifically be showcased.

The Winners

POSTER PRESENTATIONS

■ 1st Prize

Melissa Atwell

(MPhil, Geography Department)

"An innovative approach for monitoring abiotic factors influencing mangrove forest biodiversity in an estuarine ecosystem"

■ 2nd Prize

Dr. Judith Gobin

(Marine Ecology Lecturer, Life Sciences Department)

"Biofouling on recreational vessels in Trinidad and Tobago"

■ 3rd Prize

Ms Andrea Scobie

(MPhil, Geography Department)

"Biodiversity & biogeography of lichens in Trinidad and the implications for forest health and bio-sensitivity"

ORAL PRESENTATIONS

■ 1st Prize

Mrs Michelle Cazabon-Mannette

(MPhil, Life Sciences Department)

"The extent of the sea turtle fishery in Tobago, West Indies"

■ 2nd Prize

Mr Darshanjit Narang

(MSc, Life Sciences Department)

"Population Density of an Introduced primate - The Tufted Capuchin in Chaguaramas Trinidad"

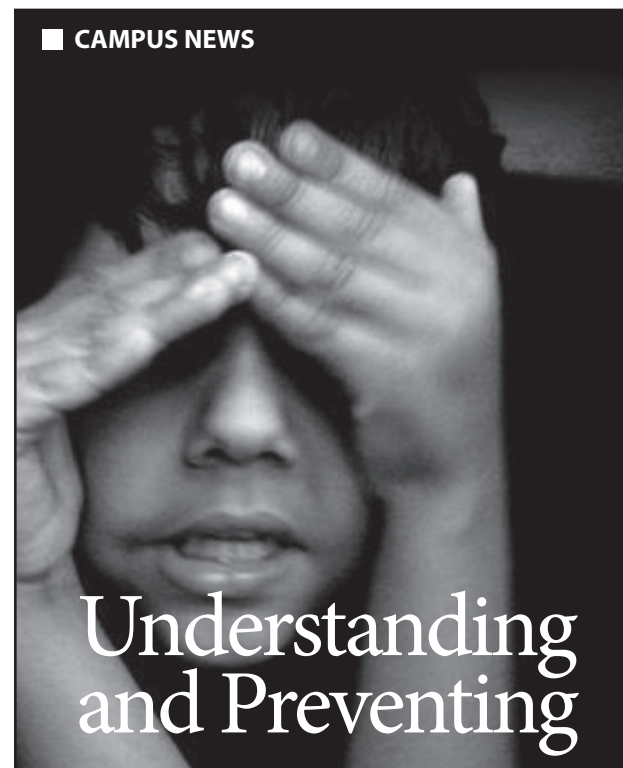
■ 3rd Prize

Mr Nigel Austin

(PhD, Life Sciences Department)

"Genetic Diversity and Structure of Mora excelsa"

■ CAMPUS NEWS



Understanding and Preventing

Presenting the project community intervention model and its rigorous analysis will be an important component of this Understanding and Preventing Child Sexual Abuse and HIV Risk: Presentation of Research Findings and an Intervention Model conference.

Hosted by the Institute for Gender and Development Studies (IGDS), UWI in partnership with UNICEF and UN Trust Fund to End Violence Against Women, the conference will facilitate the emergence of recommended policy changes, new strategies, protocols and further interventions related to Child Sexual Abuse/incest and implications for HIV transmission.

It takes place at the The Karl Theodore Conference Facility, Centre for Health Economics, Department of Social Sciences, at The UWI, St. Augustine, from April 6-9, 2011.



Break the Silence

end child sexual abuse

REGIONAL CONFERENCE

2011

For further information, please contact the
Institute for Gender and Development Studies

UWI, St. Augustine Unit,

Email: igds@sta.uwi.edu,

Tel/ext: (868) 662-2002 Ext 3573/3577

DIPLOMATIC DIALOGUES

BY CARLENE LONDON

The UWI St. Augustine Campus is bringing its international linkages centre stage through its Diplomatic Dialogues series. The Diplomatic Dialogues (DD) was born out of two separate ideas from The UWI's International Office (IO) and its Institute of International Relations (IIR) that were merged into one cohesive initiative.

Sharan Singh, Director of the International Office, explained that the DD presents a forum for discussions, debates and presentations on contemporary Caribbean and world issues. He said this forum creates an opportunity for the University to be the touchdown point for solutions stemming from in-depth research and involvement.

Professor Timothy Shaw, Director of the Institute of International Relations, also says that he hopes the DD will become known for giving insight into world issues. He said that the series is an attempt

to institutionalize the regular interface between the University and several diplomats and heads of international organizations. He believes that the occurrence of the DD is a natural progression for the IIR as it has been involved in diplomatic training and upgrading for a number of years.

The DD is set to maximize the international resources that we have available to us as a nation and showcase how by engaging these resources, solutions can be found to pertinent issues, he said. The DD gives the University stakeholders the opportunity to gain valuable international perspectives within its borders.

The first presentation of the series took place in November last year, when the High Commissioner of India, Sri Malay Mishra, spoke on major aspects of India's foreign policy under the theme, Contemporary India.

The second session took place on February 24, and featured Ambassador Stefan Schlüter of the German Embassy. The panel discussion was on Conflict Prevention and Peace Building, an area the Ambassador worked thoroughly on in Berlin.

Ambassador Schlüter's planned to discuss how a more thorough approach to peace missions involving civilian and judicial reform as opposed to simply military force needs to be adopted, and how these issues can affect the Caribbean and Latin American regions.

The German Ambassador said that the concept of the Diplomatic Dialogues supports his belief in bilateral relations that could result in knowledge and human resource exchanges. He believes that it provides a good opportunity not just to impart knowledge, but to gain insight into the thoughts and research coming out of the University. He has been instrumental in working with the IIR and IO in establishing connections and resources for future sessions.

As part of this year's programme, one of the sessions is planned to be on the addition of South Africa to the BRIC group, a topic that will surely yield provocative dialogue.



Ambassador Stefan Schlüter
of the German Embassy



High Commissioner of
India, Sri Malay Mishra

■ CAMPUS NEWS



CRUISE AND LEARN

The UWI has launched a cruise and learn initiative designed to showcase the Caribbean in a unique and fun way while providing a continuous learning experience for patrons.

The inaugural sailing of the *UWI Open Campus Scholar Ship*, scheduled for April 17-24, 2011, will be dedicated to the culture, flora and fauna of the region. Beginning and ending in San Juan, Puerto Rico, the cruise aboard the elegant *Caribbean Princess*, will dock in St. Thomas, US Virgin Islands; Tortola, British Virgin Islands; Antigua and Barbuda, St. Lucia and Barbados.

Professor Hazel Simmons-McDonald, Principal of the UWI Open Campus has described the UWI Open Campus Scholar Ship cruise as a “learning adventure especially designed to strengthen the relationships between UWI alumni, friends and family,” noting that “the cruise isn’t only about geographic travel but the exploration of the culture, flora and fauna is a journey itself.”

This first edition of the cruise will take place under the expert guidance of tour leader **Dr. Lennox Honychurch**, distinguished Caribbean Anthropologist and Honorary Research Fellow at The UWI with a wide knowledge of Caribbean history, indigenous peoples, folklore, politics, geography and ecology. Dr Honychurch was one of three 2011 laureates for the Anthony N. Sabga Caribbean Awards for Excellence, which carries a TT\$500,000 grant for research. His award came in the category of Public & Civic Contributions.

Patrons will be treated to informative lectures on and off board by Dr. Honychurch who will explore the *Cultural Crossroads of the Virgin Islands* along with numerous other distinguished regional scholars and subject experts. The cruise itinerary will also feature on-island guided tours to ecological landmarks and historical sites, performances of indigenous music and dance and the much anticipated sampling of local cuisine.



Dr. Lennox Honychurch

This first edition of the cruise will take place under the expert guidance of tour leader Dr. Lennox Honychurch, distinguished Caribbean Anthropologist and Honorary Research Fellow at The UWI with a wide knowledge of Caribbean history, indigenous peoples, folklore, politics, geography and ecology.

■ CAMPUS NEWS



■ THE INSTITUTIONAL ACCREDITATION TEAM

From left to right: Dr. Sandra Gift – Institutional Accreditation Coordinator, Dr. David Wissmann – Evaluation Team Member, Dr. Frederick Emshousen – Evaluation Team Leader, Ms. Jo-Ann Georges – Assistant Registrar Campus Records, Professor Richard Lewis – Evaluation Team Member, Dr. Trevor Gardner – Evaluation Team Member and Mrs. Deborah Souza-Okpofabri – Self-Study Coordinator

■ MAXI RELIEF

Recognising that it is often difficult for evening and part-time students to make it to classes on time, the Guild of Students, through its part-time and evening representative, has arranged for two 25-seater maxi taxis to bring students to their classes at The UWI.

From Monday to Friday, the maxis will pick up students at the Lighthouse in downtown Port of Spain at 3.50pm and bring them directly to the St. Augustine Campus. Students need to show their ID cards, which also allow them to travel for only \$3.

For more information, please call 662 2002, ext. 3890.

The State of **HEALTH**



Show me your **WAIST SIZE**

Metabolic Syndrome starts with the belly

BY PROFESSOR DAN RAMDATH

It starts innocuously with a bout of inactivity, overeating and some weight gain around the waist. As this happens repeatedly and your waist expands, it's easy to alter your clothes or purchase a new wardrobe. But as your waist size grows, so do your blood pressure and the bad fats (cholesterol and triglycerides) in your blood, and before you know it you have the dreaded Metabolic Syndrome. As the name suggests, Metabolic Syndrome is a clustering of several of the most dangerous risk factors for heart attack and type 2 diabetes, and includes high fasting blood sugar (glucose), abdominal obesity, elevated cholesterol and triglycerides and high blood pressure. People with Metabolic Syndrome are twice as likely to die from, and three times as likely to have a heart attack or stroke compared with others.

How do you know whether you have Metabolic Syndrome? The definition varies slightly from one region to another, but recently the International Diabetes Federation published widely accepted criteria now being used for defining the Metabolic Syndrome (Table 1). The



Professor Ramdath (second from right) with his research team.

major starting point for assessing whether someone has Metabolic Syndrome is an abnormally high waist circumference (WC) or a generous "inch pinch" around the waist. Traditionally, obesity is measured as Body Mass Index (BMI), which is a measure of someone's weight in relation to their height. It is very important to know your BMI and to take the necessary steps to maintain a normal BMI because many studies have shown that as BMI increases so do blood pressure and risk for type 2 diabetes.

The definition of obesity in persons of different ethnicity can vary, and this is taken into account in Table 1. Indeed, persons of Asian ancestry (East Indians or South Asians and Chinese or Japanese) have increased risk for type 2 diabetes, heart disease and stroke at lower body weight and waist circumference than persons of African or Caucasian ancestry. There has been a similar argument for the relationship between cholesterol and risk for heart attack: East Indians seem to have a higher risk for heart attack at cholesterol levels which are considered normal in Caucasians.

In the presence of an abnormally high waist circumference an individual must have a further two out of a possible four risk factors to be classified as having Metabolic Syndrome. These include abnormally high blood triglycerides, high blood pressure, high fasting blood glucose and low levels of HDL-cholesterol, which protects against heart attack. It is important to have regular measurements of these indices to assess Metabolic Syndrome risk. High triglyceride and low HDL-cholesterol are related to lack of exercise and overeating, although there may be a genetic cause, but this is rare. We tend to blame our genes for the increased prevalence of heart disease and diabetes, but although gene expression could partly account for this observation, the changes in gene expression are thought to be largely driven by dietary and lifestyle behaviours. Over the past few decades our gene pool has not changed, but there have been changes in some genes as a result of changes in dietary exposure.

BURDEN OF METABOLIC SYNDROME AND ITS COMPONENTS IN TRINIDAD AND TOBAGO

In 2007, my research team collaborated with the Caribbean Food and Nutrition Institute (CFNI/PAHO) to conduct a national nutrition survey on a representative sample of the Trinidad and Tobago population. A total of 1254 persons aged 18-64 years were questioned and measured; we found that 26% had abnormally high WC (Men=18%; Females=39%). About 20% of the sample was obese (BMI>30kg/m²); approximately 45% of persons in this sample were overweight (BMI>25kg/m²). More recently, in a study conducted by my PhD candidate, Debbie Hilaire, on a representative sample of the UWI staff found that the prevalence of high WC was a whopping 36%, with about 20% regarded as being obese (See *UWI Today January 2010* <http://sta.uwi.edu/uwitoday/archive/january%202010/article6.asp>).

As shown in FIGURE 1, the prevalence of other Metabolic Syndrome risk factors was also high: high fasting blood sugar was present in 19% of the persons studied; 24% had high blood pressure; 20% had high triglycerides; 54% had low HDL-cholesterol and 48% had high total cholesterol. Taken together it is estimated that approximately 23% of this sample of Trinidadians could be regarded as having full-blown Metabolic Syndrome.

The study on UWI staff was preceded by another research project conducted by second-year medical students. At the start of the 2006 academic year at UWI, the young researchers surveyed 186 first-year entrants from Trinidad. In addition to measuring BMI and WC, blood levels of glucose, cholesterol and triglycerides were determined in order to assess the prevalence of risk factors for heart attack and diabetes among this group. FIGURE 2 shows that almost 10% had high blood pressure, 13% had large

Table 1: THE INTERNATIONAL DIABETES FEDERATION (IDF) DEFINITION OF THE METABOLIC SYNDROME (MODIFIED)

According to the IDF definition, for a person to be defined as having the metabolic syndrome, he/she must have:

WAIST CIRCUMFERENCE OR WAIST SIZE:

- Men - greater or equal to 94 cm or 37.5 inches
- Women - greater than or equal to 80 cm or 32 inches

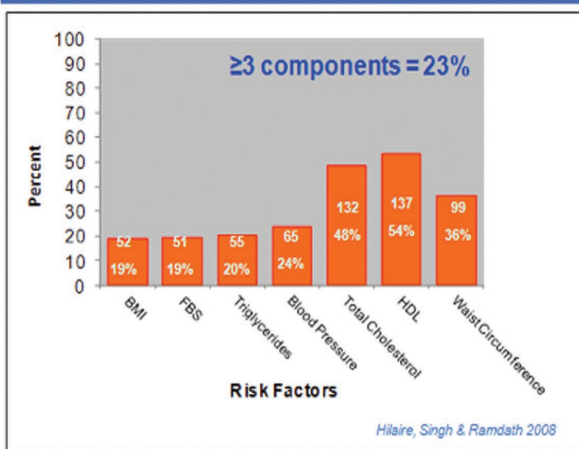
FOR PERSONS OF EAST INDIAN ANCESTRY:

- Men – greater or equal to 90 cm or 36 inches
- Women – greater or equal to 80 cm or 32 inches.

PLUS ANY TWO OF THE FOLLOWING FOUR FACTORS:

- raised triglycerides: ≥ 150 mg/dL (1.7mmol/L)
- reduced HDL-cholesterol: <40 mg/dL (1.03mmol/L) in males and <50 mg/dL (1.29mmol/L) in females, or specific treatment for these lipid abnormalities
- raised blood pressure: systolic BP ≥ 130 or diastolic BP ≥ 85 mm Hg, or treatment of previously diagnosed hypertension
- impaired fasting glycaemia (IFG): fasting plasma glucose ≥ 100 mg/dL (5.6 mmol/L) or previously diagnosed type 2 diabetes

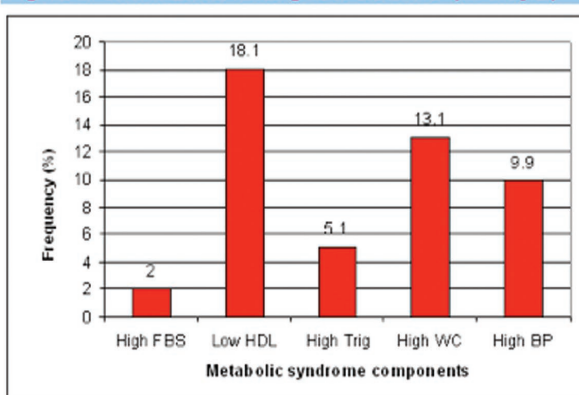
Figure 1: Prevalence of Selected Risk Factors: UWI Staff



waist circumference and 18% had low HDL-cholesterol. These results show that risk factors for Metabolic Syndrome develop at an early age when it is possible to modify these with appropriate interventions (eg healthy eating and regular exercise).

No national data exist on the prevalence of Metabolic Syndrome or its risk factors such as cholesterol or high blood pressure. The Ministry of Health plans to execute the WHO STEPS study which will provide such information. However, in the absence of any other information, we feel confident that the observations made on persons at UWI provide a reasonably good approximation of the national picture. Many other researchers have reported a staggering increase in the prevalence of obesity in Trinidad and Tobago. When we observe the heavy usage of the CDAP initiative, the waiting times for dialysis due to end-stage renal failure resulting from diabetic complications, the increasing number of young persons who have suffered a heart attack and the growing number of youths with type 2 diabetes, we must conclude that there is an undeniable problem with the growing burden of chronic diseases in Trinidad and Tobago.

Figure 2: Risk Factors among UWI students (17-20 yrs)



PROTECTING YOU AND YOUR FAMILY FROM METABOLIC SYNDROME

Using data from our various studies, another of my PhD students, Shamjeet Singh, has developed models to predict risk for developing type 2 diabetes by calculating the level of insulin resistance (pre-diabetes) and relating this to simple measurements of weight, height and waist circumference. In particular, **FIGURE 3** shows that a combination of waist circumference and triglyceride or BMI and triglyceride can be used to predict whether someone has pre-diabetes. The predictive value is modest, at 23-26%, but this manipulation shows that by knowing someone's BMI, waist circumference and triglyceride it is possible to assess their risk for developing diabetes.

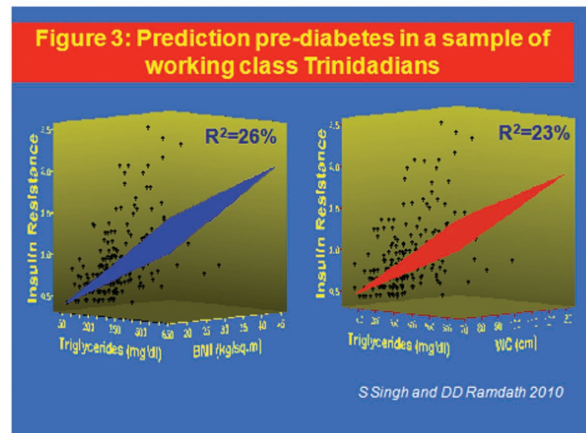
KNOW YOUR NUMBERS

Clearly, knowing your numbers for the risk factors that comprise the Metabolic Syndrome is an imperative in reducing these risks among you and your family. Not only is it important to have these tests performed by a qualified health professional on a regular basis, knowing these numbers is equally or even more important. Following is a table that gives the desirable targets for the various risk factors for Metabolic Syndrome. This Target Table is taken from the International Diabetes Federation and forms part of a pocket guide for the management of diabetes in the Caribbean, which will be launched by the Caribbean Health Research Council shortly. These guidelines are prepared for health care professionals but it is useful for everyone to read these to understand the level of care they should expect and to become more involved in the management of their health. The full guidelines can be downloaded from <http://www.chrc-caribbean.org/Guidelines.php>. By knowing your numbers and relating these to the targets on this Table any individual can now assess their risk and increase their role in the self management of disease risk.

Metabolic, Blood Pressure and Nutritional Targets

Measurement	Good
Blood glucose: Preprandial	90-130 mg/dL (5.0-7.2 mmol/L)
Postprandial	<180 mg/dL (<10.0 mmol/L)
HbA1c	<6.5%
Total cholesterol	<200 mg/dL (<5.2 mmol/L)
HDL cholesterol	>40 mg/dL (>1.0 mmol/L)
LDL cholesterol	<70 mg/dL (<1.8 mmol/L)
Fasting triglycerides	<150 mg/dL (<1.7 mmol/L)
Blood Pressure	≤130/80 mmHg
Body Mass Index	18.5-25 kg/m ²
Waist Circumference	
General:	
Women	<80 cm (<32")
Men	<94 cm (<37")
East Indians/Chinese:	
Women	<80 cm (<32")
Men	<90 cm (<35")

Source: International Diabetes Federation



DOES LIFESTYLE CHANGE REALLY WORK?

Obesity and weight gain are the starting point for Metabolic Syndrome, so it is important to engage in healthy eating (rather than dieting) and regular exercise. Healthy eating should not be confused with dieting. Dieting is a prescriptive process for persons who have an underlying disease that requires a specific diet. Dieting is sometimes used to initiate weight loss but cannot be sustained for a long period. Healthy eating should be the goal to maintaining a normal waist circumference and body mass index. Healthy eating is consuming a small amount of a variety from all food groups.

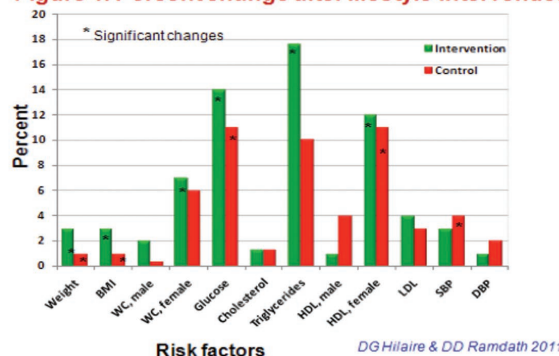
Given the high burden of disease risk and the 23% prevalence of Metabolic Syndrome among UWI staff, we collaborated with the Director, Human Resources and the Director, Health Services at UWI to conduct a six-month lifestyle intervention. Working with my PhD student, Debbie Hilaire (who is also a Registered Dietician), we designed and executed a controlled intervention: two groups of persons with two or more risk factors for Metabolic Syndrome were allocated into a group that received the usual information about healthy lifestyle, or another group

that received individual diet counselling and fitness plan, monthly lifestyles workshop and regular health information. This intervention ran for six months when measurements were repeated and the results are shown in **FIGURE 4**. There was significant weight loss and decreases in WC, glucose, triglycerides, HDL-cholesterol and blood pressure. This study showed that a healthy lifestyle that excludes overeating, fast foods and high fat foods, but includes regular physical activity and regular consumption of generous amounts of fruits and vegetables can result in a reduction of the factors that lead to Metabolic Syndrome. So again, it's not the genes that we inherited that increase Metabolic Syndrome disease risk but rather, the lifestyles we adopt that influence the genes we possess. We need to therefore stop blaming genes and focus on eating the right greens to ensure that we always fit into our old jeans.

TO CALCULATE BMI, divide your weight in kilogrammes by your height in metres and repeat the division to complete the process (eg. someone who weighs 75 kilogrammes and has a height of 1.5 metres or 60 inches will have a BMI of 33.3 kg/m² or 75÷1.5÷1.5 = 33.3); overweight is a BMI greater than 25; obese is a BMI greater than 30. There are many on-line calculators that facilitate the quick calculation of BMI.

METABOLIC SYNDROME is the clustering of a high waist circumference with two out of a possible four risk factors that include high blood triglycerides, high blood pressure, high fasting blood glucose and low levels of HDL-cholesterol.

Figure 4: Percent change after lifestyle intervention



Professor Dan Ramdath was former Head, Department of Preclinical Sciences, Faculty of Medical Sciences, UWI, St. Augustine. He is currently a Clinical Research Scientist with the Canadian Government where he leads a programme that involves human clinical trials to generate evidence for regulatory approval of health claims that impact on population health globally. Prof. Ramdath remains involved in several research activities at UWI; he supervises three postgraduate students and is a Scientific Secretary of the Caribbean Health Research Council.

The State of **HEALTH**



Science and the Prophet

The man who foretold the coming of the diabetes deluge

BY VANEISA BAKSH

Dr Theo Poon-King

The disturbing news that Trinidad and Tobago ranked among the highest in the world for the prevalence of diabetes was disturbed even further when Prof Surujpal Teelucksingh went on to reveal that children were now developing type 2 diabetes, the kind you associated with your grandparents when they said they had “sugar.”

The news didn't get better, but it provided information that could reverse the trend – if people heeded it. Unfortunately, it requires culture shifts that are so drastic that even when the first signs were spotted and reported 50 years ago by Dr Theo Poon-King, no significant headway has been made.

In January, Prof Teelucksingh presented the findings of a study done by PhD student, Yvonne Batson, which he and fellow researchers, Drs Brian Cockburn and Rohan Maharaj, have been supervising under the auspices of the Helen Bhagwansingh Diabetes Education Research and Prevention institute (DERPi). (*See January issue of UWI Today* <http://sta.uwi.edu/uwitoday/default.asp>)

The study not only identified this alarming trend for children, but Prof Teelucksingh dramatically pointed to the common factor of obesity in the group of diseases called the Metabolic Syndrome. (*See Pages 8&9*) He compared group photos of children from a half century ago and the children of our time were noticeably plumper. It was not cute.

So when Prof Teelucksingh mentioned the work already done by Dr Poon-King, a man he reverentially refers to as the Da Vinci of medical research, it seemed natural to find out what had been done by this diabetes pioneer.

Dr Theodosius Ming Whi Poon-King epitomises the courtliness and grace of truly refined gentlemen of another era – he is 83 – and his mind is sharp, his recall clear, and his interests delightfully modern (He is currently reading “What the Internet is Doing to our Brains” by Nicholas Carr.)

He describes his passion for research as one inculcated at St Mary's College when Fr Leonard Graf taught him how to study.

“Observe, analyse, synthesize,” said Fr Graf, before ushering him off to medical school in Ireland despite his scholarship award for Greek, French, Latin and Greek and Roman History. He had to start everything from scratch in that pre-med year in Dublin, but he won three gold medals by the time he graduated with first class honours and he believes it was through the techniques of research taught by Fr Graf, “the biggest influence on my life.”

It turns out that diabetes is just one of many areas in which he has made significant contributions and as I absorb the enormous girth of his work, I realise that Prof Teelucksingh is right to say that this man deserves an honorary doctorate from The UWI without delay.

Dr Poon-King's work has ranged from the effect of scorpion stings on the heart, coronary heart disease, hypertriglyceridaemia (elevated triglycerides), diabetes, poststreptococcal glomerulonephritis (a severe inflammatory kidney disease), acute rheumatic fever, streptococcal infections, immunology of streptococcal disease, and yellow fever... to paraquat poisoning.

He was the first to report on a link between scorpion stings and the heart. Scorpions were stinging like crazy in the sugarcane fields, and with his training in pathology he noticed something unusual in a 21-year-old canecutter from Barrackpore. He observed and analysed the next 36 scorpion victims and found that 70% had changes in their ECGs. Synthesizing the information, he made the important link.

In the seventies he started working with Dr Rasheed Rahaman and later, in the eighties with Dr Edward Addo (who died in 1999), on paraquat poisoning and treatments for it. According to research by Prof Gerard Hutchinson, between 1986 and 1990 paraquat poisoning accounted for 63% of suicides in T&T, and in south Trinidad from 1996 to 1997, for 76%; alarming figures. Dr Poon-King and Dr Addo were able to report a 72% survival rate from their treatment, which is now known internationally as the Addo-Poon-King regime.

He traced the source of Typhoid Fever in outbreaks of 1967 and 1969. He helped control Poliomyelitis in 1971, and in 1977 during a Yellow Fever outbreak, he worked with a team that demonstrated the virus on electron microscopy in human liver for the first time. Through him, four new nephritogenic streptococci were discovered locally and added to the international literature.

It is already a formidable range, and yet does not include work he has done in endocrinology. The work in diabetes, which set me on his trail, is the kind of work that makes you shake your head in amazement at the same time that you are trying to hang it for the shame of how we let things get out of hand.

At the invitation of Sir Harold Himsworth (the man who classified type 1 and 2 diabetes), he began a survey to find the prevalence of diabetes in Trinidad. That was fifty years ago. From July 1961 to July 1962, his team screened 23,900 people, finding 448 diabetics (1.89%) of whom 181 did not know they were.

In his report, he noted that, “Diabetes is more common in Trinidad than in North America or Great Britain,” but suggested that those figures were conservative. (The ranking is still high.)

The survey recorded race, sex, age, occupation, family history, obesity, diet, and parity of women (number of live births). Sir Harold had theorised that it was a diet high in fats that contributed to the large number of diabetics; but it was found that it was refined carbohydrates that were the real culprit.

“Roti is the root of all evil,” he says with a wry smile, stressing that white flour and white rice were the biggest contributors to type 2 diabetes. Identifying obesity and its root was a ground-breaking revelation then, but despite many public education initiatives, little has been done to dent the local desire for roti, bread, bakes, dumplings and all the other white flour treats.

“The problem is that people still think diabetes treatment is just about taking drugs,” he says. “It is about diet and exercise as well.” Writer Ian McDonald has said it succinctly: consume less, move more.

It comes full circle to the research now being done on the Metabolic Syndrome. Obesity is at the heart of it: the heart, the mind, the endocrine system, everywhere.

As he presented the findings on diabetes and children and warned of the increasing pressure on health care systems which will have to deal with spiralling depression, heart disease and diabetes, Prof Teelucksingh pleaded for government support for initiatives to provide testing in schools and public education campaigns. He reminded listeners of the deaths foretold by Dr Poon-King fifty years earlier if those same calls went unheeded.

Several researchers have answered the call to follow the insidious trail of diabetes. In many ways, the first path was cleared by Dr Theo Poon-King, and for his contribution to medical research, no honour should be spared.



The Jitterbug

Prof Teelucksingh wins Anthony N. Sabga
Caribbean Award for Excellence

BY VANEISA BAKSH

We were talking about obesity, diet, exercise and diabetes, and I figured I could get a few tips on getting trim like him.

“I eat a horse,” he said. “Every single day I eat a horse.”

Then how do you do it?

“I’m a jitterbug,” he says, shrugging it off.

It’s so true. Anyone who’s met Surujpal Teelucksingh will tell you that the man is pure motion. Ideas are no sooner generated than he is acting upon them. A consultation for him is no more difficult than pausing during a consultation, dialing on his phone, asking questions in his clear, precise, polite manner – that is always friendly enough to be warm, but not too chatty to invite coziness – and getting on with it methodically.

He is extraordinary in the way he seems to have time for everyone and everything and still retains his benign composure – which would be okay if he were just an average joe doing an average good day’s work in an average joint.

That Joe’s a cool guy, we’d say as we went along our way, never giving him another thought.

But this ain’t no Joe.

This is a Paul whose CV runs to 17 pages without boast, and whose range of activities: teaching (and examining), research, administration, doctoring, and working with various research and advisory bodies, makes one giddy just trying to figure out how he manages.

Prof Teelucksingh is a Professor of Medicine attached to the Faculty of Medical Sciences of The UWI, and the Public Orator for the St. Augustine Campus. He has done significant work in diabetes, dengue, endocrinology, and pedagogy, and has been involved in over 80 publications. He is the coordinator and a trustee of the Helen Bhagwansingh Diabetes Trust Fund which supports the Diabetes Education Research and Prevention institute (DERPi), and he is The UWI team leader of the IDB-funded Regional Non-Communicable Diseases Surveillance System Project, he is involved in MEDS Project, the Medical Education of General Practitioners and General Public in the Metabolic Syndrome. He has been scientific

advisor to the Diabetes Association of Trinidad and Tobago and the Juvenile Diabetes Association of Trinidad and Tobago, and has chaired the National Commission for UNESCO.

Now, the 53-year-old has been named as one of three 2011 laureates for the Anthony N. Sabga Caribbean Awards for Excellence. His award for Science and Technology was announced earlier this month. The other two awardees are Dr Lennox Honychurch of Dominica (Public & Civic Contributions), a Staff Tutor at UWI’s School of Continuing Studies, and Dr Kim Johnson (Arts & Letters).

The award is accompanied by TT\$500,000, a sum meant to help recipients further their projects. So what does Prof Teelucksingh plan to do with his award?

“A metabolic lab designed to screen for metabolic diseases in the newborn, e.g. thyroid disease,” he said, adding that early detection makes the world of difference. “If we catch them within the first week of life there is a good outcome and if we fail, as we often do, due to lack of a screening protocol, then society becomes burdened by having special kids who require costly special attention. This is but one example of what a super functioning metabolic lab can do.”

He said this dream will take time as they will need to build capacity, “with the help of colleagues like Dr Brian Cockburn who has great expertise in the genetics of diabetes, which is a bright prospect on the horizon.”

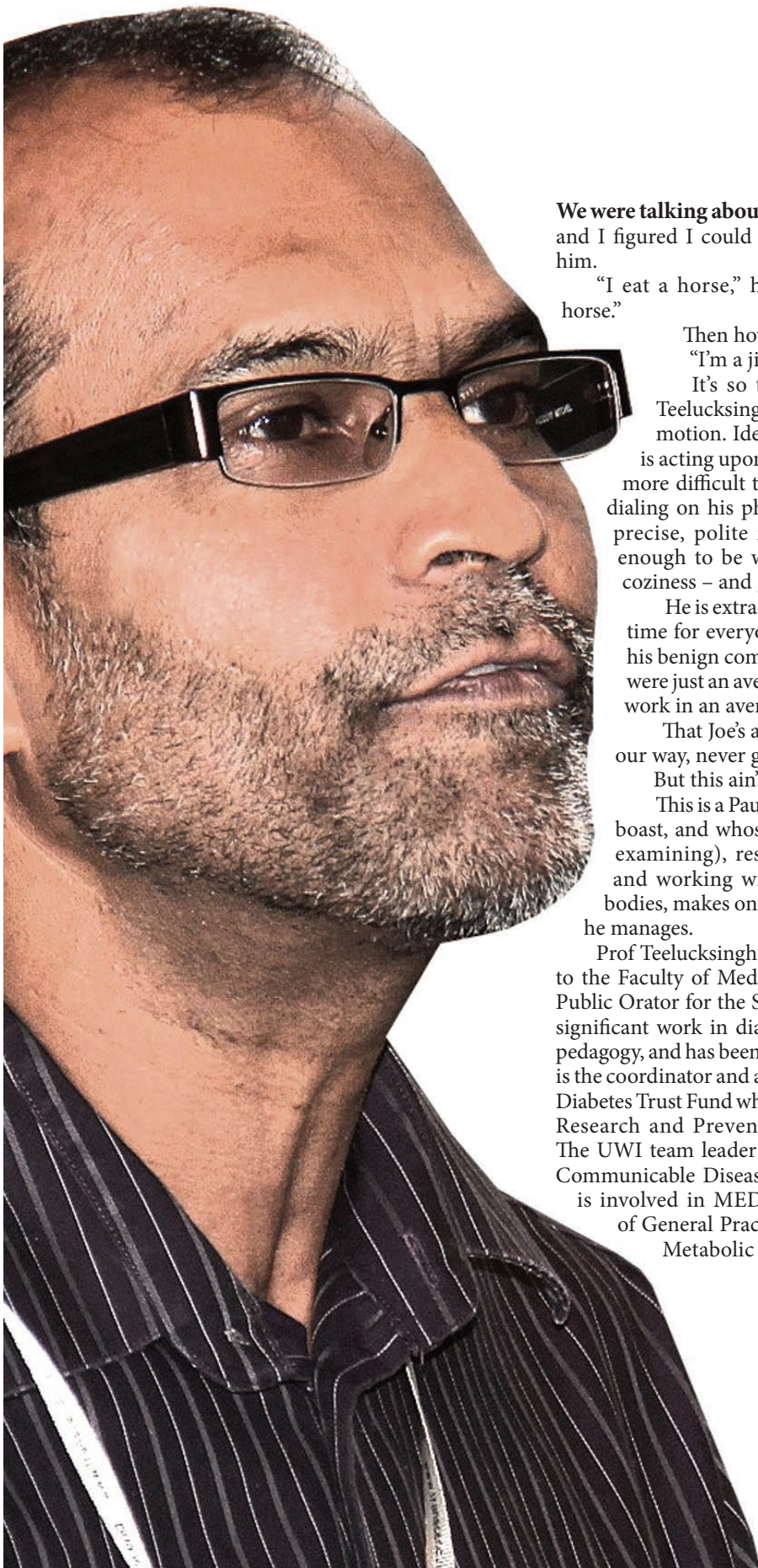
“Of course this lab will complement our diabetes work in children in better identifying and treating such kids discovered to be diabetic. There is much more to be done here but that will be the start,” he says, taking his trademark brisk approach.

“I am intrigued by the close association between diabetes and heart disease. My pet research area these days is trying to unravel this link. There are many things occurring in the diabetic all at once: hypertension, dyslipidemia, obesity, hyperuricaemia and many others. We are told that when many things occur together, we should try identifying one common link... and I am playing God trying to find that one point of origin!”

Maybe playing God is what fuels this jitterbug; whatever it is should be bottled because God knows we need more like him.

“I am intrigued by the close association between diabetes and heart disease. My pet research area these days is trying to unravel this link. There are many things occurring in the diabetic all at once: hypertension, dyslipidemia, obesity, hyperuricaemia and many others.”

Prof Paul Teelucksingh



The State of **HEALTH**



Data collection methods hamper study

Cancer reporting needs to be mandatory

BY VANEISA BAKSH

It has come to pass that everyone knows someone with cancer. Daily lives are disrupted as family, friends and the afflicted are forced to restructure their ways of living to manage its effects.

Oncologist Dr Anesa Ahamad, and Biostatistician, Dr George Legall have recently concluded a study seeking to estimate the causes of breast cancer and the scope for preventive strategies, based on age at diagnosis in Trinidad and Tobago. That study found a 51% increase in breast cancer, which was consistent with the trend of developing countries. However, statistics also show that in developed countries the reverse is happening: cancer figures are decreasing. Further studies must be done so that developing countries can at least begin to understand what factors keep the trend line climbing.

Breast cancer, for instance constitutes one third of all female cancers (men get it too) and occurs twice as frequently as cervical cancer, the second most common. The study noted that while chemicals or pollutants in air, water, food, soil or other material were often cited as major factors in increasing cancers, lifestyles were also closely linked to the trend. Obesity, low physical activity, alcohol intake, delaying childbearing until over 30 or cancelling it altogether, less breast-feeding, use of oral contraceptive pills and use of hormone replacements at menopause all increased the risk, but were modifiable, said the researchers.

They found too that early detection increased survival rates significantly. (See *January issue of UWI Today* <http://sta.uwi.edu/uwitoday/default.asp>)

In discussing the limitations of the study, the report noted a major constraint for collecting complete data was underreporting of cancer cases by medical institutions.

Ideally, all cancer cases should be reported to the National Cancer Registry of Trinidad and Tobago, but as it is not a legal requirement, it is not mandatory and this leaves frustrating gaps for research and planning, and ultimately affects health policies.

In this particular study, the researchers used data from the National Cancer Registry, which is the only source of population-based cancer data for T&T citizens and residents. For the period from 1995 to 2006, each case of the entire database was examined.

“This comprised 22,704 cases of invasive malignant neoplasms among which no data was available for primary in 718 (3.16%) of cases. No data for race was available for 4207 (18.5%) of all cases. There were 36 cases of breast carcinoma in situ and these were excluded. There were 53 cases of male breast cancer and 3427 cases of female breast cancer diagnosed over the 12-year period, among whom no data for race was available for 439 (10.4%) of cases,” said the report.

The researchers rightly complained that the information then is of “sub optimal quality.” If cancer reporting were to be made mandatory, then the practice of some medical institutions which “do not facilitate collection of data” would be immediately stopped and there would be some measure of standardisation in the data collected.

A strong advocate for mandatory cancer reporting is Veronica Roach, Registrar at the National Cancer Registry, who fully facilitated the research.

“If it is mandatory, it cannot be refused. Some machinery will have to be put in place for the registration of all cases diagnosed in Trinidad and Tobago. As a population-based registry, it will allow us to see all cases of cancer,” she said.

She outlined the process as it is, where registry officers actually visit hospitals, laboratories, cancer centres and other health service units to abstract data (including from death certificates). When they encounter discrepancies or incomplete information, they check with the treating physicians or the reporting pathologist.

But, as in many developing countries where cancer reporting is not compulsory, resources are scarce to do this kind of investigation, and many institutions are willing to help only when it is convenient to do so.

In September 2007, at a special CARICOM meeting called to address the increase in chronic non-communicable diseases (CNCD), the Port of Spain Declaration: Uniting to Stop the Epidemic of Chronic Diseases, was signed. This approved a programme to tackle CNCD.

Members of CARICOM agreed on several points of action, one being: “That we will establish, as a matter of urgency, the programmes necessary for research and surveillance of the risk factors for NCD with the support of our Universities and the Caribbean Epidemiology Centre/Pan American Health Organisation (CAREC/PAHO).”

Following this meeting, a national population-based registry for stroke, acute myocardial infarction (AMI or heart attack) and cancer was formed in Barbados by the Ministry of Health in partnership with The UWI: the BNR, the Barbados National Registry for Chronic Non-Communicable Diseases.

Rhea Harewood, Registrar for the BNR-Cancer, noted that improving patient care relies on accurate data collection. “Health policy changes do occur, but you have to have data to demonstrate the need for interventions,” she said. The cancer registry has only been collecting data since July 2010 and will need two years of data before interventions can be made, but cancer reporting has been made mandatory.

The figures keep rising in developing countries, but they are falling in the developed ones. Data collection and research are obvious requisites of formulating policies and devising preventive measures to manage cancer. How can expensive projects such as the planned National Oncology Centre and National Cancer Control Programme be relevant and appropriate to the nation if they are not based on reliable, comprehensive information? Mandatory cancer reporting has been recommended in the Draft National Cancer Plan that is under consideration by the Ministry of Health. It would certainly help researchers to find out how to tailor efforts towards reducing the occurrence of cancers.

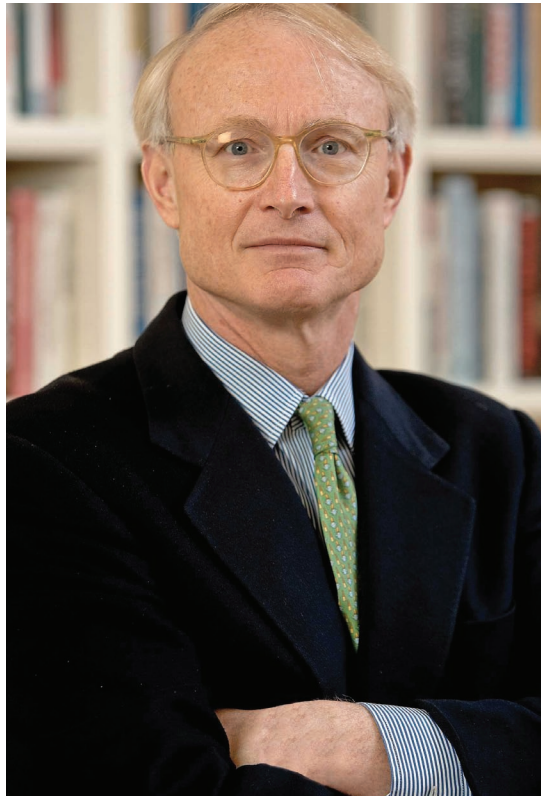
■ UWI FETE 2011





UWI CALENDAR of EVENTS

MARCH 2011



LEADERSHIP AND INNOVATION

Friday 25 March, 2011
8.30am-5.30pm
Hyatt Regency, Port of Spain, T&T

The Arthur Lok Jack Graduate School of Business presents Professor Michael E. Porter as the feature speaker for its Distinguished Leadership and Innovation Conference 2011. Professor Porter is the Bishop William Lawrence University Professor at Harvard Business School, and is an authority on competitive strategy, the competitiveness and economic development of nations, states, and regions, and the application of competitive principles to social problems such as health care, the environment, and corporate responsibility.

For further information, please contact the conference team at 645-6700 ext. 299, or via email at conferencing@lokjackgsb.org, or conferencing@gsb.tt

BAPTIST LIBERATION CONCERT

Tuesday 29 and Wednesday 30 March, 2011
7pm
Daaga Auditorium, UWI, St. Augustine

The UWI Arts Chorale and UWI Steel present a concert in honour of Baptist Liberation Day.

For further information, please contact Marissa Brooks at the Department of Creative and Festival Arts, at marissa.brooks@sta.uwi.edu or Tel: (868) 662-2002 ext.3792

CLL | Centre for Language Learning
THE UNIVERSITY OF THE WEST INDIES – ST. AUGUSTINE CAMPUS



OPEN HOUSE 
March 25-26, 2011

CLL OPEN HOUSE
25-26 March, 2011
Centre for Language Learning
UWI St. Augustine

The UWI Centre for Language Learning (CLL) will host its second triennial Open House, themed 'Go global. Learn a language.' At this Open House, students will find out how they can learn up to 10 foreign languages with the CLL, including Hindi, Italian, French, Spanish, Chinese and Japanese. The event will underscore the importance of foreign language proficiency for global citizenship, with cultural displays and activities.

For further information, please contact Vanessa Williams at 662-2002 ext. 3896, or via email at vanessa.williams@sta.uwi.edu

UWI TODAY WANTS TO HEAR FROM YOU

UWI TODAY welcomes submissions by staff and students for publication in the paper. Please send your suggestions, comments, or articles for consideration to uwitoday@sta.uwi.edu

NEW GEOGRAPHIES

Thursday 24 to Saturday 26 March, 2011
Daaga Auditorium,
CTI & Engineering Department
UWI, St. Augustine

The New Geographies: Studies in Postcoloniality and Globalization Conference proposes to work with a more flexible understanding of postcolonial studies. Keynote speakers are Prof. Arjun Appadurai and Gisèle Pineau, while Guy DesLauriers and Patricia Mohammed will screen their films followed by a post-screening Q&A session.

For further information, please Email: postcolandglobal@gmail.com or Tel. 662-2002 ext. 3039, or visit the website at <http://sta.uwi.edu/conferences/11/postcoloniality/contactus.asp>



NEW GEOGRAPHIES
STUDIES IN POSTCOLONIALITY AND GLOBALIZATION
INTERNATIONAL CONFERENCE MARCH 24 - 26, 2011
The University of the West Indies . St. Augustine.
Trinidad & Tobago, West Indies

JOUVAY AYITI

January-March 2011
Department of Creative and Festival Arts (DCFA)
UWI St. Augustine

The Faculty of Humanities and Education will present a transformative Carnival Project: Jouvay Ayiti: Transformation through Celebration, Celebrating Haiti's Past, Encouraging Her Future. Jouvay Ayiti approaches the task of creating a discussion of Haiti amongst the national community through five main experiences:

- A small Carnival band of individual characters that will take part in 2011 regional carnival competitions under the theme: 'Haiti: Gods, Villains and Heroes.'
- A Haitian RaRa band within "The Old Yard"
- A Jouvay band that references historical and contemporary realities of Haiti
- A virtual mas camp
- A theatrical production

For further information, please contact Marissa Brooks at the Department of Creative and Festival Arts, at marissa.brooks@sta.uwi.edu or Tel: (868) 662-2002 ext. 3792