



UWI TODAY

THE UNIVERSITY OF THE WEST INDIES • ST. AUGUSTINE CAMPUS

SUNDAY 11 JUNE, 2017



The UWI Games is a biennial UWI tradition which is staged at a different campus each time. For the 2017 edition, nearly 500 athletes from across the Caribbean took part in the 10 sporting disciplines featured: basketball, football, tennis, swimming, table tennis, track and field, volleyball, cricket, netball, and 6-a-side hockey. Competition in all sports involved both male and female participants except for cricket and netball, which were male only and female only respectively. The St. Augustine team came away overall winners in cricket, swimming and table tennis. **Syriah David** was one of the stars of the triumphant swim team. PHOTO: KEYON MITCHELL

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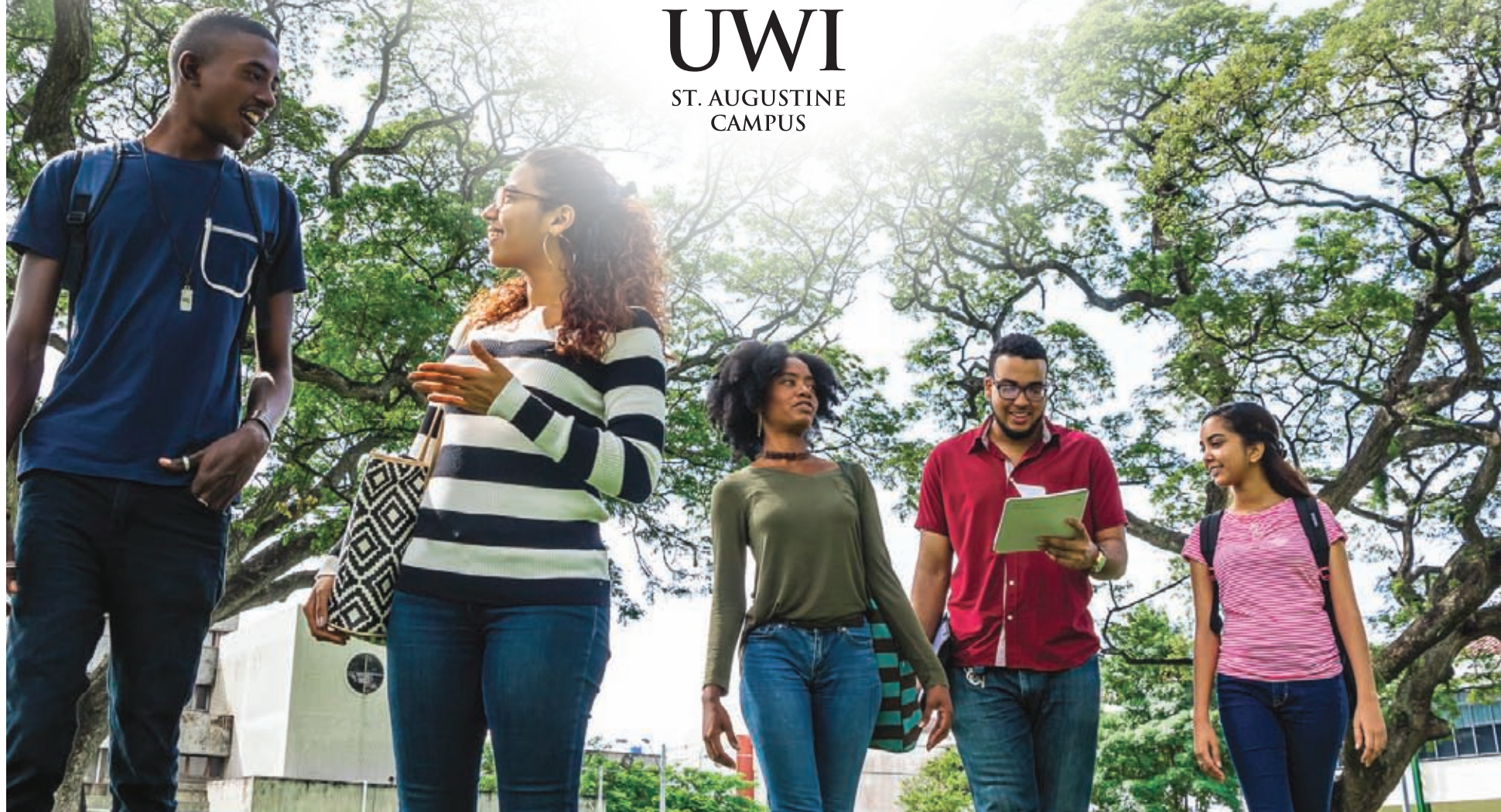
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FROM THE PRINCIPAL

NURTURING OUR NEW WAVE OF STUDENTS



When The UWI St. Augustine officially opened its classrooms to students in 1960, it was in an environment teeming with the sound and fury of independence and freedom from colonialism. The Federation attempt failed soon enough, but the region was focused on taking its affairs into its own hands. UWI students

dutifully attended classes, mindful that there was a great challenge ahead – that of governing and building a Caribbean that represented Caribbean people and their ideals. This was a slightly different agenda from that of their predecessors, students from 1921 onwards of the WIAC, ICTA and the UCWI, who were our pioneers in forging a Caribbean culture of learning.

An appropriate conversation with university graduates of the sixties would likely reveal a level of civic consciousness that is not so apparent in recent generations. Something happened to change that. This may just be the perception of an older generation. However, if there is substance in the perception, perhaps it is the legacy of an oil-abundant economy, or the result of a drastically increased accessibility afforded by GATE, or the impact of an education system that many claim is not adequately attuned to our developmental needs. Whatever the cause, a university education seems to have become devalued. Students are, for the most part, of the expectation that academic certification provides automatic access to a rewarding career, and the idea of giving back has retreated from their consciousness. Perhaps this is simply one of the symptoms of the feeling of entitlement that dogs our society, thus robbing it of its productivity potential, or of the individualism that has characterized this century.

Of course, this issue has a global context. A 2013 article in the online publication theguardian.com, responded to a poll that clearly showed a similar shift in the thinking of UK youth. It noted that, “A rising generation that finds college expensive, work hard to come by and buying a home an impossible dream is responding to its plight, not by imagining any collective fightback, but by plotting individual escape.”

Caribbean survival in the stark reality of our regional circumstance demands much more of our students today than ever before. Even as we grapple with the economic, societal and ecological challenges across the region, many of our graduates are facing hitherto unseen levels of underemployment, even in the high-demand professions such as medicine and law. Graduates of the various programmes at the St. Augustine Campus will leave its nurturing grounds to enter a fiercely competitive world, one that is much more responsive to global changes, and one in which there are no guarantees.

However, the blame cannot be laid at the feet of our youth for, in no uncertain way, this is the legacy that we have left them. In many ways, we have failed to do our best to live up to the post-independence promises that saw societal growth and development for much longer than the short sixty years or so of our sovereign existence. We have bequeathed to them the unfortunate task, one they must now accept as their responsibility, of understanding our

Graduates of the various programmes at the St. Augustine Campus will leave its nurturing grounds to enter a fiercely competitive world, one that is much more responsive to global changes, and one in which there are no guarantees.

failures and rebuilding Caribbean societies so that their descendants have a better chance for survival and growth.

At The UWI, we have taken on the challenge of utilising our resources to help younger generations learn how to survive in the new dynamically changing world. Indeed, the vision that we have formulated, underscores the view that survival is by far the most important objective for any education system. We believe that it is of the utmost importance that our citizens must be educated and trained to meet and beat every challenge that nature or humankind throws their way.

We see basic survival as a must for all. This is all the more significant given the potentially disastrous effects of climate change or the increasing earthquake activities on our extremely vulnerable island states. Not many of the populace have the wherewithal to survive if cut off from the mainstream that provides the societal networking and the life-supporting supply of resources.

We also see the need to expand the current education-for-jobs paradigm to one that nurtures creativity and innovation and equips citizens for survival in current and future societies. This will also create the best possible potential for that survival. In this regard, our national and regional education systems should target the creation of a robust culture of innovation that endows citizens with the ability to spot and exploit commercial opportunities and to derive novel, ingenious and workable solutions to our economic, societal and ecological challenges. On its own, this is an enduring legacy that we should bequeath to future citizens, a legacy that completely obliterates the debilitating cultural impact of slavery and indentureship. However, it is the manifestation of this new-found characteristic that will determine the ultimate survival and growth of our region as a whole.

At this juncture, we could only imagine what the region would be like when populated by citizens who are confident in themselves and their ability to treat with life's challenges. In the face of natural disasters or almost apocalyptic societal collapse, those citizens would be very

capable of living off the land as individuals or small groups or, as situations dictate, to build and maintain resilient communities that, over time, would recover and grow into well-established societies. Whatever the circumstances, they would understand and respect the ecology and be effectively resourceful in protecting it. In the best of times, they would have crafted a society that is virtually free of the current ills, such as crime and discrimination of all sorts. Economic prosperity, assuming an economic system of the sort that exists at present, would be buoyed by a robust structure that is supported by an extremely healthy network of innovation-driven, export-oriented small and medium enterprises. We would have achieved a sustainable existence.

This futurescape that includes a buoyant self-sustaining economy leads me to conclude with a mention of Dr. Anthony Sabga, whose memorial service was held on June 3. In many ways, Dr. Sabga represented the kind of citizen we would like to build. Significantly, just think of the innate qualities that would give a young man the confidence to leave his ancestral home half a world away, take up residence in a foreign land and start a business from scratch. Think of the vision and drive that empowered him to move that business from vending clothes on a house-to-house basis and ultimately leading it all the way to the success we know as ANSA McAL today. This is the kind of drive, determination, know-how and confidence that we need in our young people. We need, in Trinidad and Tobago alone, by my very informal estimate, 10 to 20 thousand export earning SMEs – a virtual swarm – driven by the likes of Dr. Sabga.

What a legacy that would be!

Brian Copeland

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Campus Principal

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SPORT



MAKING CHAMPIONS



At the close of the 2017 UWI Inter-Campus Games on June 1, 2017, two points separated the defending champions, Mona Campus, from their closest rivals. Mona tallied 102 points and Cave Hill was right behind with 100 points. St. Augustine closed with 76 points, coming in third place and the Open Campus team, which competed only for the second time in the Games' 52-year-history, earned 18 points. The St. Augustine team came away overall winners in cricket, swimming and table tennis.

From May 25, teams comprising over 500 student athletes competed for athletic glory. The tournament, themed "The Making of Champions," saw athletes test their talent and skills in ten disciplines and the atmosphere of friendly rivalry at the Games' kick-off continued during the

closing ceremony held at the Cave Hill Campus.

As he presented the trophy during the closing ceremony, UWI Vice-Chancellor, Professor Sir Hilary Beckles spoke of the extraordinary work of the coaches, administrators and the student athletes who contributed to the success of the event. "These Games are so important to the prestige of our institution and to the values we associate with higher education and the young citizens (whom) we are preparing to lead this region," he said.

Host Campus Principal, Professor Eudine Barriteau noted the athletes' determination, perseverance, fighting spirit and magnanimity during the tournament. She said their fun-filled sportsmanship left an indelible mark on each person present and served as a reminder that even

though they came from four Campuses, they represented a unified UWI. "You have given us eight unforgettable days," said Professor Barriteau. I am sure that most of you came as competitors and are leaving as friends. Such is the power of The UWI Inter-Campus Games—to unify, forge lasting friendships, create lasting memories, break down insularity, and set the stage for the formation of crucial alliances that can foster and facilitate personal and institutional bonding. And in doing all of this, we strengthen regionalism, because this Caribbean belongs to all of us, but especially to you, the region's future."

The next UWI Games will be hosted by the Mona Campus in 2019. PHOTOS: KEYON MITCHELL



SPORT

Vikash is 2017 Sportsman

At the opening ceremony of the UWI Games on May 25, the awardees of the Vice-Chancellor's Sportswoman and Sportsman of the Year were announced.

Vikash Mohan, the current captain of the St. Augustine Men's Cricket Team was named Sportsman of the Year. Vikash has previously led youth teams in Trinidad from Under13 to Under19. He is a final-year Mechanical Engineering Student at St. Augustine.

Shimona Nelson, the Sportswoman of 2017, is a first-year student who plays netball, basketball and throws the javelin. She took up a scholarship in 2016 after being scouted by The UWI Mona Sports Programme and is pursuing a degree in Psychology at Mona.

Eleven student athletes from across the University's four campuses—Cave Hill, Mona, Open and St. Augustine were nominated and the ceremony took place at the Cave Hill Campus.



Sportsman 2017, Vikash Mohan with his cricket teammates. The St. Augustine team was the overall winner in cricket.



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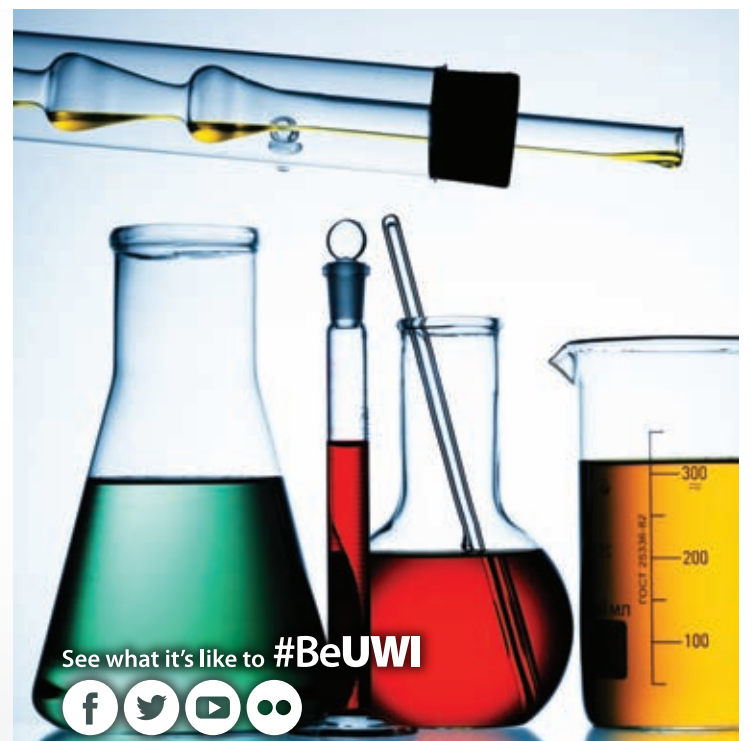
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■ INTERVIEW



ONE YEAR IN

The Song of Change

Almost a year after assuming the role of Campus Principal at St. Augustine, **Professor Brian Copeland** reviews that period in a Q&A with **Vaneisa Baksh**, UWI TODAY Editor, and talks about the present and the future.

VB YOUR RESPONSIBILITY AS CAMPUS PRINCIPAL BEGAN WITHIN A REGIONALLY DEPRESSED ECONOMIC ENVIRONMENT. IT MEANT FINANCIAL CUTS ACROSS THE BOARD, WHICH HAS AFFECTED STAFF AND PROJECTS. HOW HAVE YOU BEEN MANAGING THIS PROCESS?

BC On a campus level, I have supported the initiatives proposed by the Bursar and arrived at after consultation with campus senior management, mostly the Deans. We did not want to cut staff, but at the same time were mindful of the fact that we also could not cut too deep into our operational budgets. I think we barely managed to do that while maintaining a satisfactory level of operation.

The major actions included the reduction of part-time contracts to nine months; the freezing of unfilled positions to pay part-time staff; aggressive contract negotiations to reduce the price of outsourced services; the reduction in staff by attrition, and reduced overtime.

At the Office of the Campus Principal, I deliberately decided not to purchase a new vehicle as was my right as new Campus Principal. There was no need, as the last Principal had purchased a vehicle in 2015 which had clocked only about 1000 km when I took up office. It just so happens that this was exactly the vehicle I would have selected had I opted to purchase a new one. I have also taken a decision to reduce the use of paper in the office; most people will tell you, for example, that I download papers for meetings.

VB WITH UNCERTAINTY ABOUT THE FUTURE OF GATE, HOW HAS THE CAMPUS BEEN MANAGING STUDENT ADMISSIONS? HAS THERE BEEN A DECREASE IN APPLICATIONS?

BC There has been a decrease in applications in some programmes, significantly at the postgraduate level. In response, we held an Open Day on May 28 and invited prospective students to discuss their career goals and to view UWI offerings. We have extended application deadlines to June 30. Faculties have been asked to get in touch directly with existing students. For the medium and long term, we will be reviewing our recruitment strategies.

VB CAN YOU GIVE AN UPDATE ON THE STATUS OF THE SOUTH CAMPUS?

BC We have started to award tenders to contractors to complete the infrastructure and some of the buildings. Given the funds available, the Law Faculty building, the Moot Court, the Academic building, the Halls of Residence, the Student Union, the Facilities Management and the Security buildings will be ready for use. Sadly, we cannot afford to complete the Library at this time. We will accommodate the requisite library services in one of the completed buildings until it could be made ready.

Much has been said about the academic programmes to be offered at the South Campus. What I can definitely say at this time, is that Faculties, Departments and Units

that will be the vanguard of South Campus occupation, will be those with offerings that leverage the site to support the thrust of the Campus into new avenues and to increase the Campus' earning potential. We have detailed appropriate criteria for selection on the basis described. Unless good sense dictates otherwise, there will be a single lead Faculty-based operation in the form of a single programme or suite of programmes. However, this will be complemented by other operations.

VB CAN YOU IDENTIFY THE BIGGEST CHALLENGES YOU HAVE FACED?

BC Despite the fact that I spent eight years as Dean [Faculty of Engineering], I must say that the past few months have been quite a learning experience. Notwithstanding the challenges such as the South Campus, the protests arising out of the Law Faculty, the shortfall in Government allocations and the outstanding negotiations and attendant back-pay issues, I would have to say that the biggest challenge thus far has been managing the pace of the office, more so in an environment in which systems and processes are not as well defined as they should be.

That pace is primarily determined by the short cycle of Campus and University meetings and is compounded by an organizational structure that leans to the unwieldy. In addition to the funding challenge, this has limited my ability to properly plan and strategize. I intend to address these structural challenges in short order.



UWI will be a University that would have reinvented itself so as to optimally align its teaching and research mandate to societal needs, even as it makes its contribution through the creation of a stronger culture of innovation.

■ INTERVIEW

VB WHAT WOULD YOU SAY WERE YOUR MAJOR ACHIEVEMENTS?

BC I have made some adjustments at the management level. For example, I cleared the Office of the Campus Principal of all units that I considered to be of a purely operational nature so that it could focus on more strategic matters. Significantly, the Division of Facilities Management was returned to the Registrar's Office and its activities in managing campus projects were transferred to the Campus Projects Office.

At the campus level, I have restructured campus management in an attempt to make it more responsive and action oriented. Significantly, there is a Campus Executive Management Team (CEMT) that comprises myself, the Bursar [Andrea Taylor-Hanna], the Registrar [Richard Saunders], the Deputy Principal [Prof Rhoda Reddock] and the Librarian [Frank Soodeen]. We meet every two weeks to look at core, supportive elements. Senior Management meets twice per semester; this includes Deans and Directors who manage the various operational units. Finally, there is a management team that includes all the above and other management staff and administrative officers. We are still fine-tuning this system. What I can say is that judging from the CEMT activities to date, there is an awful amount of work ahead of us.

I think that I have been successful in motivating a new vision for the Campus, one that incorporates an implicit mandate to do all that we can to support the development and growth of the nation, the Caribbean and the University. It is supported by two key initiatives: a completely re-engineered and revitalised educational component, as well as a new thrust into the domain of innovation-led, export-oriented entrepreneurship. This vision is now embedded in the UWI Strategic Plan for the period 2017-2022.

I think the greatest achievement so far has been the galvanizing of the Office of Research, Development and Knowledge Transfer to take the lead in building the campus systems required to effectively support that innovation-led, export-oriented entrepreneurship. At the same time, it will seek to facilitate innovation on the social and ecological fronts. Its progress has been in no small way the result of the stellar efforts of its new director, Professor John Agard. I place great store on this activity because it represents a significant departure from what the University has traditionally been doing: teaching, research and outreach.



VB YOU HAVE SPOKEN CONSISTENTLY ABOUT THE NEED FOR THE UNIVERSITY TO RECONFIGURE ITS WAY OF DOING THINGS: TO THINK MORE ENTREPRENEURially, TO BE MORE FOCUSED ON TRANSFORMING RESEARCH INTO COMMERCIALLY VIABLE VENTURES. THIS REQUIRES MORE THAN SYSTEMIC CHANGES, IT WILL DEMAND A CULTURAL SHIFT THAT, GIVEN HUMAN NATURE, WILL DOUBTLESS MEET RESISTANCE. CAN YOU ELABORATE ON HOW YOU PLAN TO MAKE THIS HAPPEN?

BC My 20 years or so of singing the song of innovation-led entrepreneurship has made me painfully aware of the depth of the challenge of creating the new university culture. Historically, the most effective strategies for culture change require a significant change in the people who are solidly embedded in the old culture or a motivating force that is too strong to be ignored. I had hopes for the country when the new university, UTT, was formed, as innovation and entrepreneurship was identified as part of its mandate; however, I do not think that this has yet been achieved.

That being said, my strategy for the UWI has several components:

1. Work really hard for an early win. It is for this reason that I have set a mandate for St. Augustine to launch its first spin-off company by August 2017.
2. Establish an innovation-to-entrepreneurship ecosystem that will provide all the support required to move an idea into impactful reality – commercial in the first instance. That ecosystem will include legal, financial and business development support, all in collaboration with the private and public sectors.
3. Work with staff who are willing, but target students primarily, to identify potentially innovative opportunities among the vast array of projects at St. Augustine.

The long-term, very conservative target is for UWI to spin-off one new company every two years. The recession is a great motivator in moving these plans along.

VB THERE HAS BEEN SPECULATION THAT THE APPOINTMENT OF A CHANCELLOR WHO COMES FROM A COMMERCIAL BACKGROUND IS PART OF A UNIVERSITY STRATEGY TO SIGNAL A DIFFERENCE IN THE WAY IT DOES BUSINESS. HOW RELEVANT IS THAT ELEMENT TO THE SELECTION OF MR. ROBERT BERMUDEZ?

BC I think that his appointment is truly strategic; if only because it signals the urgency of the very same culture change you asked about. Many are of the view that a Chancellor should be an academic. However, the Chancellor's responsibility is primarily ceremonial although he/she has responsibility in the governance framework as Chairman of Council, the highest decision-making body at The UWI. Most of all, the Chancellor is expected to be a strong advocate for the University.

Our first Chancellor, Princess Alice, was not an academic. The last Chancellor at the University of Huddersfield in the UK was renowned actor Sir Patrick Stewart, best known for his role as Captain Jean Luc Piccard on the Star Trek Enterprise TV series.

VB CAN YOU SHARE YOUR VISION FOR THE ST. AUGUSTINE CAMPUS AND THE UNIVERSITY GENERALLY FOR THE NEXT FIVE YEARS?

BC Along the lines of what was mentioned earlier, The UWI will be a University that would have reinvented itself so as to optimally align its teaching and research mandate to societal needs, even as it makes its contribution to the creation of a stronger culture of innovation. The latter will be characterized by a steady stream of new innovation-led, export-oriented enterprises to buoy our sagging economies and by University-resourced social interventions towards a vastly improved society. This University will also be one that continues to lead in identifying and addressing ecological challenges of the Caribbean.

VB WHAT KIND OF SUPPORT – INTERNAL AND EXTERNAL – DO YOU SEE AS NECESSARY TO ENABLE YOUR VISION, AND HOW DO YOU PROPOSE TO GET IT?

BC It always boils down to a workable strategy that is well-resourced with human and financial capital.

VB FINALLY, ONE YEAR IN, WHAT DO YOU THINK HAS DEFINED YOUR PRINCIPALSHIP?

BC People-empowerment and the consequent reliance on the collective to aid in situation assessment and in decision-making.

Research for EL DORADO

UWI scientists discover a bio-diversity treasure that could make Trinidad a powerhouse in the natural product industry

BY JOEL HENRY



Oil and gas, cocoa, scorpion peppers – Trinidad has always been blessed with abundant, unique and profitable natural resources. Researchers at UWI St. Augustine's Faculty of Science and Technology have found another, one with the potential to form the basis of a robust, export-driven industry. Yet the resource is invisible to the naked eye – microorganisms.

Why are these tiny organisms so potentially valuable? Because the processes they create have antibiotic as well as other properties. In other words, researching microorganisms can lead to the development of pharmaceuticals, an industry whose world market revenue is estimated at over US\$1 trillion. And in the case of Trinidad, UWI scientists have found several sites with microbial activity well above the norm.

"We have some tremendously exciting hot spots in Trinidad. The diversity is enormous," says Dr. Adesh Ramsubhag, Senior Lecturer in Microbiology and Head of the Department of Life Sciences. "We collaborate with some of the world leaders in genomics and metagenomics. They carried out a project where they collected samples from oceans around the world twice. The microbial diversity results were not comparable to these Trinidad hot spots."

"We are trying to show proof of concept. And we are very close. We have discovered a novel antibiotic and we have at least two others that are potentially novel. I believe this can be one of our greatest economic resources," he says.

But like any resource, it will require sustainable investment. So far the discoveries and the hard work behind them have been driven by researchers within the Faculty, including several students. Furthering this work will require resources in equipment and manpower. It will also require intellectual property protection. Biotechnology (products from biological sources) is a dynamic and competitive business, if Trinidad and Tobago does not see the value of its bio-resources, invest in them and protect them, others will. They may be doing so already.

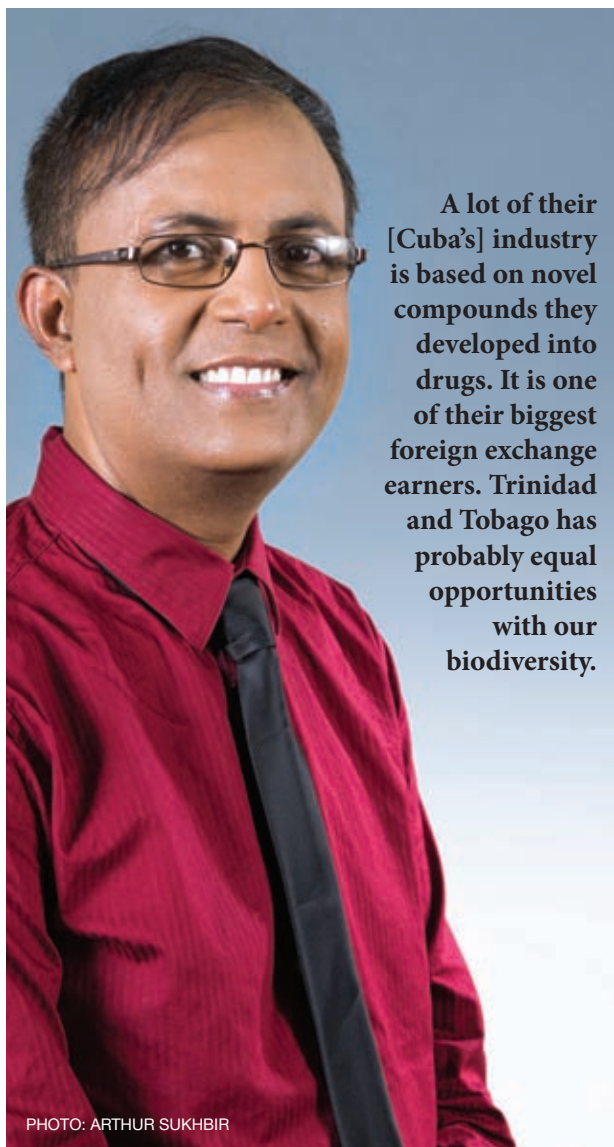


PHOTO: ARTHUR SUKHBIR

Dr. Adesh Ramsubhag

A lot of their [Cuba's] industry is based on novel compounds they developed into drugs. It is one of their biggest foreign exchange earners. Trinidad and Tobago has probably equal opportunities with our biodiversity.

Under a Microscope

"Every year I give my students a few projects in microbiology," Dr. Ramsubhag says. "I give them to explore indigenous microorganisms from different environments to see those that might be producing antibiotics. One day this group came excitedly knocking on my office door."

The students had struck gold. They had discovered a microorganism with phenomenal antibiotic properties. A small amount eliminated a dish full of bacteria. They conducted the experiment several times and the result was the same. One of the Life Sciences students, Antonio Ramkissoon, is continuing the research as his thesis, in collaboration with the Department of Chemistry.

"Even for me that was one of the biggest effects I have seen in my life," says Professor Jayaraj Jayaraman. A professor of biotechnology and plant microbiology, Jayaraman has been a faculty member at universities in India, Canada and the USA.

In the microscopic world, the rule of survival of the fittest applies. Organisms are in competition, and the more diversity of organisms, the greater the competition. The greater the competition, the greater likelihood of organisms having distinct and powerful antibiotic effects to eliminate rivals.

The enormous diversity in the Trinidad hot spots leads to organisms like the one discovered by Antonio and its novel antibiotic compounds can potentially be developed into a drug. And because many pathogens have developed a resistance to existing antibiotics because of their overuse, drugs developed from novel compounds can be both highly beneficial to human health and highly profitable.

You don't have to look far for an example of just such a process of profitable natural products. From 2013 to 2017, the biotechnology industry of Cuba was expected to earn US\$5 billion. In the previous five-year period, it brought in US\$2.5 billion. The Cuban biotech industry is a major producer and exporter of pharmaceuticals and could be

even larger were it not for the longstanding embargo against the Caribbean nation. In recent years Cuba has developed innovative natural products such as Heberprot-P, which is used in the treatment of diabetic foot ulcers; CimaVax-EGT, a lung cancer vaccine for patients in the advanced stage; and Theraloc, an antibiotic for the treatment of lung and gastric cancer.

“Cuba is a best model,” says Professor Jayaraman, “whatever industry they have is home grown.”

Dr. Ramsubhag agrees, “they have invested tremendously for decades in biotechnology (almost US\$1 billion in the late 1980s). A lot of their industry is based on novel compounds they developed into drugs. It is one of their biggest foreign exchange earners. Trinidad and Tobago has probably equal opportunities or more with our biodiversity.”

A Research Culture

Antonio’s novel compound discovery is one of several natural product-based research activities taking place at the Faculty of Science and Technology. Another PhD student, Tresha Dobson, from the Chemistry Department has isolated several novel compounds, some of which have antibiotic effects. One in particular has been found to have effects very similar to a drug used in the treatment of Parkinson’s Disease.

“We need to invest in this kind of research,” Ramsubhag says of the high potential of these biological compounds.

Another graduate student in the Life Sciences Department, Omar Ali, is conducting very promising research into the effects of Trinidad’s seaweed on specific agricultural crops. In addition to his microorganism research, Antonio was also involved in the seaweed project and is currently working on what has the potential to be groundbreaking work on a natural anti-mosquito product. Many such projects are going on in partnership with the Chemistry Dept.

An important aspect of this research is that it is driven by students. In the words of the Department, Life Sciences is the “direct descendent” of the Imperial College of Tropical Agriculture, the research institution founded in 1922 that would become the UWI St. Augustine Campus. Although UWI has expanded its role to teaching, departments such as Life Sciences place major emphasis on facilitating a research culture and empowering students with an interest and capacity for original and impactful scientific inquiry.

“All it requires is a spark,” Professor Jayaraman says, speaking about unlocking the research potential in students. “We give them enough opportunities to pick up threads. We don’t hand-hold them. That is not research. We teach them the procedures and then we let them go, providing guidance and suggestions. That freedom is very important. If you have freedom the mind will be liberated, clear and they will think on their own.”

Dr. Ramsubhag says the good researchers are not always the ones who get the highest grades. He points to attributes like self-motivation, capacity for hard work and good observational skills.

“You need to have a thirst for knowledge and exploring new ideas,” he says, pointing out that these attributes can be unlocked in students once they are exposed to new ideas and scenarios. Because of its international relationships, the Life Sciences Department allows students to collaborate with some of the top experts in the field and use the latest technology.

Investing in T&T’s Biotechnology Future

The gains made by UWI scientists in biotechnology

“Even for me that was one of the biggest effects I have seen in my life.”



PHOTO: ARTHUR SUKHBIR

Professor Jayaraj Jayaraman

are impressive but much more can be achieved with sustainable funding. Through mechanisms like the Research and Development Impact (RDI) Fund, UWI St. Augustine strives to support research with a strong potential for the development of the region, but its resources are limited. Likewise there is enormous competition for international research funding.

Molecule Men

“Nature provides a lot of the resources we need,” says Antonio Ramkissoon, giving a brief but complete statement on the value of natural products. A PhD student in microbiology, Antonio is one of a new generation of young researchers in the Faculty of Science and Technology exploring the potential of biological-based products for medical treatment and commercialisation.

Working in the Life Sciences Department, he is involved in several projects. His thesis focuses on the development of antibiotic drugs from microorganisms. He has successfully identified several novel or potential compounds with antibiotic effects and is currently working on measuring their safety for human use and tweaking the strength of effect. Antonio is also working on a plant-based product that repels mosquitoes and kills larvae. This is very promising research.

A third project he has worked on is the anti-fungal effects of certain types of seaweed on specific crops. This research has been continued by another young microbiology researcher at Life Sciences, Omar Ali.

“Utilising two local seaweeds we have extracted a liquid and applied it to tomatoes and bell peppers,” Omar explains.

The results have been dramatic. Not only did the seaweed cause a major reduction in disease, it also increased the growth of the plants and their yields. Currently Omar is doing molecular analyses to determine the interactions taking place at the gene expression levels to help explain the mechanisms of action of these extracts.

For both Antonio and Omar the ultimate ambition is to see their research lead to the development of natural products – medicines, pesticides, insect repellants. Under the guidance of their supervisors and researchers, they are pioneers in what could, with the appropriate strategy and investment become, a Trinidad and Tobago-based biotechnology industry. They are doing their part.

Faculty members like Dr. Ramsubhag and Professor Jayaraman and student researchers invest their time and in some cases their own money to further research that can bring massive dividends to Trinidad and Tobago. But they can only do so much.

“We need significant investment in our laboratory infrastructure,” says Dr. Ramsubhag. “But more importantly we need grant funding to hire dedicated human resources. This is necessary for isolation and downstream processing. We need post-doctoral scientists to do the full spectrum from discovery to development.”

With these resources in place, he says The UWI can take a potential drug up to laboratory trials and animal models. The next step will be working with the international pharmaceutical companies, relationships that the Faculty of Science and Technology is currently building.

Professor Jayaraman points again to the Cuban model, in which the Government made substantial investments in biotechnology and the nation is now reaping the reward.

“This kind of research leading to product development is strategic and it deserves local support. We do not wish to seek outside support for these kinds of projects because of the sensitivity of the research and the intellectual rights,” he says.

In the World Economic Forum’s “Global Competitiveness Index,” innovation remains a consistent drag on the nation’s competitiveness and its investment and in research and development ranks close to the bottom of the 140 economies ranked.

“We need to change the perception of society when it comes to research,” Jayaraman says. “We must have a vision. We are sitting on a treasure which is a big, sustainable resource and we have to use it to sustain our economy.”



Microbiology PhD candidate, Antonio Ramkissoon at the flow hood where most of the microbial work is done. PHOTO: ATIBA CUDJOE



Microbiology MPhil candidate, Omar Ali prepping a plate to do a gene expression at the plant microbe lab. PHOTO: ATIBA CUDJOE

Finding CANCER DRIVER GENES

BY SHERRY ANN SINGH

PhD candidate **Emilie Ramsahai** envisions a day when a company in Trinidad and Tobago develops medicinal drugs to compete in the global pharmaceutical industry.

Undaunted by the influence and might of Big Pharma, she muses on the possibility of a thriving industry in “made in Trinidad & Tobago” branded pharmaceuticals existing alongside the industry behemoths dominating this trillion-dollar sector.

In April, Emilie’s current research in this area thrust her into the spotlight at the Faculty of Science & Technology’s Annual Research Symposium 2017. She took the Head of Department Award for Best Oral Presentation for the Department of Mathematics and Statistics for her study on “The use of gene interaction networks to improve the identification of cancer driver genes.”

As proud as the PhD in Statistics student is of that achievement, she has her eyes set on a bigger prize – one day being part of a super-team of Trinidad and Tobago-based medicinal drugs developers.

“A lot of our drugs are imported and then re-sold, but there’s no reason we cannot develop our own industry right here. It is very possible,” she pronounced, matter-of-factly.

Her insight comes from specializing in Bioinformatics: a cross-disciplinary field combining Statistics, Computer Science and Bio Chemistry. Emilie’s PhD in Statistics would complement her first degree in Mathematics and Masters in Computer Science, which combine well for a career in Bioinformatics.

With genome sequencing, Bioinformatics has become mainstream internationally and is now a budding field of study at The UWI. Due to its cross-disciplinary nature, collaboration with teams of specialists in different fields is unavoidable. This could lead organically to the creation of a research team involved in developing pharmaceutical drugs within the borders of Trinidad and Tobago.

While Big Pharma is motivated primarily by economic interests, Emilie’s passion for pharmaceuticals is rooted in a love of research, along with a desire to meaningfully affect lives.

These twin forces inspired the research on cancer drivers presented at the Symposium.

“The significance of this research is its potential to improve the quality of cancer treatment, drug development and personalized care. It can impact lives and health care in general for cancer patients.”

At present, cancer treatment revolves around chemotherapy and surgery – both traumatic experiences.

Explaining how Bioinformatics can improve cancer care and the quality of lives, Emilie said her research employed different strategies to distinguish cancer driver genes from passenger genes. Her team investigated the benefit of combining data from three different sources on



PhD candidate Emilie Ramsahai says, “This research is actually looking to improve the quality of life and type of treatments, possible drug targets and alternative ways of treating cancer.”



Emilie’s peer-reviewed research was published jointly with Kheston Walkins, PhD student in Molecular Genetics, and the academic supervisors.

the prediction outcome of cancer driver genes. This resulted in an enriched dataset, which increased its accuracy by 17% and 28%, respectively. The study identified 33 new candidate driver genes.

“Our study highlights the potential of combining networks and weighting edges to provide greater accuracy in the identification of cancer driver genes,” she said.

“An understanding of mutated genes that drive the formation of cancer is important in the discovery of new drugs and the recommendation of targeted treatment regimes for patients,” she said.

“This research is actually looking to improve the quality of life and type of treatments, possible drug targets and alternative ways of treating cancer. It is mainstream in terms of providing a different way to treat cancer.”

Emilie’s peer-reviewed research was published jointly with Kheston Walkins, PhD student in Molecular Genetics; primary supervisor, Dr. Vrijesh Tripathi of the Department of Mathematics; and co-supervisor Dr. Melford John, of the Department of Preclinical Sciences in PeerJ – an award-winning biological and medical sciences journal. She also acknowledged the support of Dr. Rajini Haraksingh from the Department of Life Sciences for allowing her work to be presented at the Symposium.

Amid rising incidents of lifestyle and other diseases in Trinidad and Tobago, her long-term goal is to head a research group focused on drug development for different diseases, based on genomics.

“At the moment we are using publicly available data but if we’re doing something with data specific to Trinidad and Tobago we would need to obtain funding... I am looking for a research group for drug development for not only cancer but other diseases. A lot of the current work can be done with other diseases.”

Emilie’s advice to those contemplating a career in this field is to embrace collaboration and be willing to acquire new knowledge. Many researchers are unwilling to step outside of their areas of expertise, deterred by the steep learning curve required and the difficulty of collaborating with others.

“No one coming into this field would be a specialist in the three areas and therefore working with others is essential,” she said.

Emilie implored anyone interested in Bioinformatics – students and medicinal drug industry developers alike – to contact her to explore potential research collaborations.

“There’s a tremendous opportunity for the different disciplines to come together,” she said. “Working together we can have a significant impact, although the rewards would not be immediate. At this stage, we need the investment. The rewards will come in the long term.”

Should you Wash your Fruit with Soap?

BY DIXIE - ANN BELLE

Are you the sort of person who carefully washes each fruit and vegetable you picked up at the market? Do you worry about the quality of the food you are feeding your family? Then the findings of Master's student Winnette Collimore and her research supervisor Dr. Grace-Anne Bent of the Department of Chemistry should spark your interest and maybe a little anxiety.

In early April, Winnette Collimore presented some of the work she has been doing to measure the levels of pesticide residue in local foods.

During the process, fruits and vegetables were obtained from supermarkets and markets in the central region. Organochlorine (OCs) and organophosphate (OPs) pesticide residues were detected in some of the samples.

"The levels we've found so far are below the maximum residue levels (MRL)," said Collimore, but their findings provide an important look into the use of pesticides in local farming and by extension, local food production.

The latest available research is around 20 years old. Collimore saw it as an avenue to approach the topic in novel ways since new pesticides and methodologies have emerged in recent decades, and as Dr. Bent explained, not all available research applies to this country. "Some of the pesticides that we use are different," she says, "our soil type and climate are different, so we need to get data which relates specifically to our region and country."

One of the most noteworthy results of their work has been the development of a new method of detecting pesticides. The most common methodology is the QuEChERS method. (Wikipedia describes it as a streamlined approach that makes it easier and less expensive for analytical chemists to examine pesticide residue in food. The name is a portmanteau word formed from Quick, Easy, Cheap, Effective, Rugged and Safe.)

Collimore has developed a modified version of QuEChERS which would be cheaper for people in the Caribbean. During her presentation, the methodology received considerable attention from the gathered faculty and peers.

Their findings so far have been thought-provoking. "We found pesticide residues such as DDT and its metabolites in food purchased from the market," explains Dr. Bent. "It was surprising because this pesticide was banned since 1995, more than 20 years ago. It shows the level of persistence in the environment."

It wasn't a cause for concern however, as the levels were below the MRL."

Collimore wants people to understand just how these pesticides can affect the body. "Pesticides are not just cancer-causing agents," she says. "They can affect every single system of the body."

Even when people are exposed to them in small quantities, bioaccumulation over time can give rise to disease.

Despite the dangers, local farmers still use these



Winnette Collimore:
"Pesticides are not just
cancer-causing agents.
They can affect every single
system of the body."
PHOTO: ATIBA CUDJOE



Dr. Grace-Anne Bent: "We found pesticide residues such as DDT and its metabolites in food purchased from the market. It was surprising because this pesticide was banned since 1995, more than 20 years ago."

chemicals. They are cheaper, get the job done, and apparently, it's tradition.

"Why change to organic farming if my grandfather and my great-grandfather used it? I'm going to continue with the same thing," says Collimore. But she feels farmers have to be educated as well, and should be encouraged to have their produce tested for residue. It will take some doing. Even when she offered free testing during the research period, they were reluctant.

"They think that you're going to call names," she explains, and they feel that the information will affect sales.

She feels that if they can be persuaded that with testing, they can guarantee their crops have low or non-existent levels of residue, then that branding could be a gateway for exporting their produce as the testing is part of export criteria.

Both Collimore and Bent think that the State can have a significant role in improving pesticide usage. Dr. Bent suggests stricter guidelines and policies, like regular testing. She proposes incentives for farmers who agree to it. Education in using alternative pest management and more funding for agricultural research could also have a significant impact.

It is not surprising that Collimore has chosen this particular research as her focus. This resident of Longdenville, Chaguanas and alumni of St. Francois Girls' College is enthusiastic about chemistry and her research, as well as for the potential it can have in investigating societal problems and inventing new strategies as solutions.

She speaks excitedly about her discoveries, clearly fascinated by her readings in particular. She admits being a little paranoid though when she reflects on what might be found on the foods she and her family eats. She is particularly aware now that pesticides can be found in any food commodity like dairy products, milk and eggs – even her favourite morning tea!

She stresses that the best protection is to limit exposure to pesticides.

"Wash your crops before use," she says. "You can wash with diluted detergent. Peeling... now we suggest that you peel."

Unfortunately you can't completely eradicate your exposure, but you can lessen it.

What's the next step in this important research? Collimore would love to look at other classes of pesticides. For now, "When everything is conclusive... we would later on speak more about levels, the assessment levels we did and what are the scenarios so far with these pesticide levels in Trinidad and Tobago."


 ■ MENTAL MATTERS

Stepping Back from the BRINK

BY GERARD HUTCHINSON

In “Full Extreme” some have seen a capacity to celebrate and enjoy our lives in spite of whatever problems we might be facing, so that we are “jamming still” regardless. This might be a kind of resilience, if we accept that construction.

Nihilism is derived from the Latin *nihil*, meaning nothing. The Oxford Dictionary refers to it as such an absence of moral and religious principles that life has no meaning. In philosophy, it refers to the idea that nothing in the world has a real existence. Albert Camus referred to nihilism as the biggest problem of the 20th century – which in its latter phases gave birth to the Internet and virtual reality. The root *nihil* is also found in the word annihilate, which means to destroy everything.

The pervasive nihilism that seems to now define Trinidadian life found its expression in the runaway Carnival hit song, “Full Extreme.”

Individuals who experience major depression frequently have nihilistic beliefs that are part of their condition. They feel empty, devoid of meaning and therefore, of hope, and are consequently apathetic and completely demotivated.

How do we overcome this negation?

“Full Extreme” suggests that hedonism or partying to the fullest is one way. “We jamming still,” while everything burns down, is an indictment of our inability to face and constructively overcome the negation that our social and structural problems invoke. It also implicitly suggests that the institutions should indeed be destroyed. If all we can do is jam then the capacity to reconstruct or even prevent the complete destruction of our own lives becomes compromised by our philosophy that declares “we doh business.”

The lack of trust in our institutions and the abiding sense that most, if not all of them, cannot deliver what is needed beyond a basic standard to lift the society out of its despair, may be the rationale that lies behind our taste for destruction. Rules and regulations are only useful if they serve our narrow and self-seeking ends.

The repeated expectation of corruption and the lack of accountability at every level have stymied our capacity to

believe we can deal with the many outward manifestations of these problems. The sense that our safety – individual and collective – is under siege from criminal elements adds to a sense of hopelessness and indeed, helplessness. We know from neuroscience that when there is a lack of safety, it generates a fear/rage response which alternates with anxiety and which may be another explanation for our anger and aggression.

Nihilism can be contagious and generational and is thought to have informed another great modern trend: narcissism or preoccupation with self. This in turn has led to another negative manifestation, which is the demise of interpersonal relationships: the very medium through which humans derive meaning to challenge the emptiness that might be generated by interactions with the wider world.

The absence of meaning lends itself to an absence of trust and here the individual is mirroring the social, or is it the social being constructed by the individual? The social outcome we face here is the growth of interpersonal violence now extending itself publicly all around us, particularly among the younger age groups in the society.

This suggests that there are fundamental problems with our initial social relationships. As Erik Erikson pointed out, the essential struggle of the first year of life is the battle between trust and mistrust. If fundamental relationships are struggling to survive, then everything else will struggle to survive, much less to thrive.

Immediate gratification and shallow hedonism are likely reactions to this combination of conditions which in turn begs the question: What is the appropriate response to stress and adversity?

The question is very important because it will determine how well we answer the even more critical question: How do we step away from the brink of collapse and social deterioration?

In “Full Extreme” some have seen a capacity to celebrate and enjoy our lives in spite of whatever problems we might be facing, so that we are “jamming still” regardless.

This might be a kind of resilience, if we accept that construction.

However, celebration can only be liberating if it occurs in an atmosphere of security, support and hope. Resilience is a testament to hope that in spite of the gravity of our current experience, we can overcome and do better so that hope can be embraced and become a new reality.

But hope for what and in what?

What kind of society do we want to create?

This is our first challenge. Then there is the challenge of rebuilding the social fabric of our communities, which is a major pillar in the support that helps beleaguered individuals survive their difficult circumstances.

Is there a need for a return of a community in spirit, value and actions that can inform that process so the country can really become all inclusive?

A belief in oneself and in the people around you is, by extension, a belief in the national project that you become an integral part of as long as your commitment to that belief extends beyond self. Put another way, salvation of self is only possible through salvation of the community that you truly believe you belong to, and which reciprocates your commitment with a sense of mutual benefit. The neighbourhoods and active communities ultimately define and inform the national identity.

We must invest in encouraging people to learn about themselves and therefore to believe in themselves and the inextricable links that bind them together as a people so that the strength that comes from sharing life rather than competing for its spoils will resonate in actions that will allow our society to grow rather than burn down.



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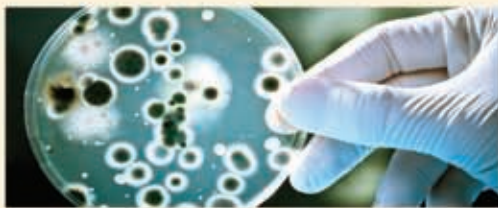
Postgraduate Admissions 2017/2018



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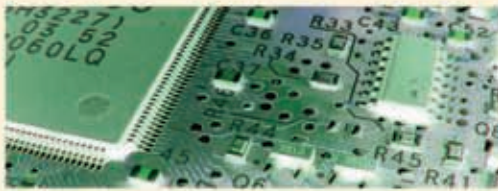
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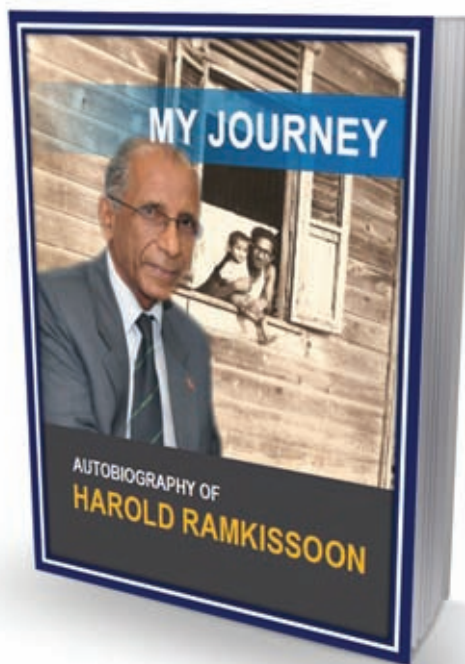
APPLICATION DEADLINE

June 30, 2017

A Remarkable Journey Indeed

BY BRIDGET BRERETON

My Journey: The Autobiography of Harold Ramkissoon



I am interested in memoirs and autobiographies as a way of remembering and constructing history via life stories told by the person himself. In his foreword, Dr. Keith Mitchell says that Caribbean autobiographies are rare. This used to be true but is less so now—I think of the books by our Prime Minister, Dr Rowley, or by our former Vice-Chancellor Sir Alister McIntyre, or by the late business magnate Anthony Sabga, to cite just three recent examples. But autobiographies by scientists are certainly rare, in the region and perhaps everywhere. I'm always pleased to learn of new autobiographical publications, partly because they can be inspirational for readers, partly because they are valuable sources for studying the past (my profession).

Harold is of Indian descent from a Hindu background, so his book adds to a rapidly growing literature of Indo-Trinidadian life stories published over the last few years, including autobiographies and memoirs, biographies, family histories and fiction (novels and short stories).

I was especially interested in Chapters 1 and 2, which deal with Harold's growing-up years and his education. Harold's struggle to get a secondary and university education against the odds is obviously a key theme here, but, with respect, this is NOT a "rags to riches" story. First, I'm not sure that Harold is exactly rich right now, and second, he didn't come from "rags" ie from dire poverty (always related to the historical context).

Harold grew up in a rural Hindu family. His great-grandparents were indentured immigrants from India, so he is a third-generation Trinidadian. He was surrounded by his two extended families, and especially on his mother's side, there were people who owned businesses and land, growing canes, cocoa and food crops. There's no doubt that cash was very scarce as he grew up, and of course his childhood home lacked what we think of as basic amenities (electricity, piped water in the house), but that was standard in most rural houses in the 1940s and early '50s.

The great advantage the young Harold enjoyed, besides his own intelligence and fierce determination, and his being the first son, was the support of his parents and the two big extended families, some of whose members were well-off by the standards of the day. But money was always scarce, and Harold was the first of 11 children. (As an aside, what a great example of the demographic transition and the shift in life patterns over one generation: Harold's parents married at 19 and 17 and had 11 kids, Harold married at 35 and he and Tara had two.)

Harold grew up between Tabaquite, where he spent most of his childhood and where his mother came from, and Penal, his father's home village. He paints a nice picture of the contrast between the two villages in the 1940s-50s. Penal was almost wholly Hindu, and nearly everyone followed the traditional rural life of Indo-Trinidadians in this period, as described so well by Morton Klass in his study of Felicity in the early 1950s. Tabaquite was a mixed community, with a significant "Spanish" element and a strong Roman Catholic tradition.

There was one other advantage that Harold had, though he may not have seen it at the time: like virtually all rural children growing up in this period, regardless of ethnicity, he worked on his relatives' fields, doing various jobs, on weekends and school holidays. This kind of childhood nearly always instilled discipline and the values of hard work; Dr Rowley describes exactly the same thing about his childhood in rural Tobago a few years later.

Harold went to the Tabaquite RC primary school, because it was nearest home, and his teachers encouraged his precocious abilities. A caring headmaster of the old school coached the Exhibition Class, of which Harold was the brightest boy. And when the exam results came out, he came in at a mark of 197 (out of 200 possible awards) along with eight others. The government agreed to award 208 exhibitions that year because of this "tie" of nine children, and so Harold became the first Tabaquite child to win a free place to a secondary school. This was indeed his passport out of relative poverty.

Harold went to Presentation College, San Fernando—I assume he chose it over Naparima College because of the

link with his Catholic primary school. For most of his time there he took the bus from Tabaquite, a journey of at least one and a half hours each way, leaving at 5 am. He used the time on the bus to study, yet another discipline-instilling practice which taught him time management and organization as a young boy.

Adjustment to college life wasn't easy for the rural Hindu boy; here he was in the city, with many middle-class classmates from varying ethnic backgrounds, but few of them Hindus. As he puts it, it was the roti lunch, not eaten too openly, versus the sandwich lunch, a situation quite a few Indo-Trinis of his generation experienced.

He did well in his Higher School Cert exams (the equivalent of A-Levels) in 1960, but a health crisis prevented him from trying for an Island Scholarship. There would be no easy path to university for Harold; UCWI at St Augustine had just opened but didn't offer an honours degree in Maths. He taught at Presentation College Chaguanas for three years, saved his money, and entered UWI Mona in 1963, with enough money to finance his first year in the BSc Maths programme.

Harold was at Mona from 1963-66, and he greatly enjoyed the regional experience, with students from all over the Caribbean—something we have largely lost. It was Leslie Robinson, head of the maths department, who got the T&T Government to award Harold a scholarship for his second and third years. And it was Robinson who came to Taylor Hall at night to tell him personally he'd got a First, a true achievement back in the day, and helped him to gain a CIDA scholarship to do an MSc at the University of Toronto.

That was the kind of personal, one on one interaction that many of us enjoyed at Mona in this period. "Mona spoiled us", Harold writes; no wonder he felt the contrast at Toronto, a big city campus where you were left to your own devices and there was none of that personal caring (I remember feeling exactly the same thing when we went there to do our MA). But, as always, he persevered, and went on to study for his PhD in Fluid Dynamics at the Universities of Alberta and Calgary.

Harold began to teach in the Department of Maths here in 1976, and the rest, as they say, is history. He had a stellar academic career, becoming a Reader in 1990 and a Professor in 1998. He became an Ambassador for Caribbean science, helping to create and run several organizations which seek to raise the standard of science in the region, and to link our scientists to their international counterparts. You can read all about this, his travels and his many posts, and his memorable moments, in the rest of the book.

It's a remarkable journey which certainly deserved to be written up and made available to all, and I congratulate Harold on making this effort; I hope it inspires many young people.

This is a version of the review presented by Professor Bridget Brereton at the launch of the autobiography on May 2, 2017.



Climate Changes Affect Us First

Caribbean in the frontline



Cities in Small Island Developing States (SIDS) are highly vulnerable to climate change impacts, especially sea level rise and flooding. With the growing possibility that the 1.5 degree Celsius target may be surpassed despite the Paris Climate Change Agreement

to keep global temperature from rising beyond 1.5 degree Celsius, Caribbean SIDS will need to defend their populations and infrastructure against flooding and more frequent natural hazards.

According to Dr. Michelle Mycoo, Senior Lecturer in the Department of Geomatics Engineering and Land Management, the Faculty of Engineering and lead author of the study, *A Blue Urban Agenda: Adapting to Climate Change in the Coastal Cities of Caribbean and Pacific Small Island Developing States*, an estimated 4.2 million people in

SIDS in the Caribbean and in the Pacific are living in areas that are prone to flooding due to rising sea levels. These countries have leveraged nearly US\$800 million in green climate funding to support coastal resilience.

“Caribbean and Pacific coastal cities are on the frontlines of climate change,” says Dr. Michael G. Donovan, senior urban specialist at the IDB and co-author of the study. “It is critical to adapt and improve the resilience of cities in coastal zones, especially those SIDS that are experiencing rapid urbanization and are low-lying,” said Dr. Mycoo.

The international community has responded by providing US\$55.6 billion in aid and private sector flows to Caribbean and Pacific SIDS over the last 20 years. These programmes have included coastal engineering to protect cities from flooding and coastal erosion, wetland restoration, coral reef conservation and watershed rehabilitation, urban planning and the enforcement of coastal setbacks and flood-resistant building codes.

The study reviewed 50 projects financed by the IDB,

World Bank, Asian Development Bank and others, and the efforts made by Caribbean and Pacific SIDS to implement adaptation strategies aimed at reducing vulnerability and enhancing sustainability. It shows an increasing emphasis on urban governance and institutional capacity building within city planning agencies.

It includes several policy recommendations for cities, including improving coastal planning, land reclamation, coastal setbacks, enforcement of building codes, climate-proofing infrastructure, mangrove reforestation, and coastal surveying and monitoring.

“Caribbean and Pacific coastal cities are on the front lines of the response to climate change and are pioneering innovative approaches to respond to coastal transformation. Much can be learned from these cities in the way they are adapting to sea level rise, flooding and natural hazards. The Caribbean region has now become a reference for how cities should protect population and urban assets, including port cities and human settlement,” says Dr. Mycoo.

Dr. Michelle Mycoo is a Senior Lecturer & Urban Planner in the Department of Geomatics Engineering & Land Management, UWI, St. Augustine

The UWI's Open Day, held on May 28, would have revived a lot of old memories if older alumni had formed the majority of the attendees. So many things have happened over the years at the JFK Quadrangle!

But the Open Day was a gesture to prospective applicants. So recruitment officers and faculty members came out to lend some guidance to the process, which was made even simpler with guidance about financial opportunities (for making it through the study period, not for jobs!)

The UWI offers many scholarships and bursaries to students annually through its Division of Student Services and Development (DSSD). Such funding is also available to first-year students and post-graduates.

**It was a good day
to be UWI**



UWI CALENDAR *of* EVENTS

JUNE – OCTOBER 2017

BRIDGING WOR(L)DS

June 21
Centre for Language Learning
The UWI St. Augustine

The Departments of Modern Languages and Linguistics (MLL) and Literary, Cultural and Communication Studies (LCCS) present the Bridging Wor(l)ds Conference. It features the research of MA, MPhil and PhD students within both departments and takes place from 9am to 4pm at the Centre for Language Learning (CLL) Auditorium.

For more information, please visit the Campus Events Calendar at www.sta.uwi.edu/news/ecalendar.

IGDS SHORT COURSES

June 28 to 30
July 11 to 18
The UWI St. Augustine

There's still time to register for the Institute for Gender and Development Studies' (IGDS), Summer short courses:

- Data Collection and Research for Development Practice: Considering Gender and Making People Visible with Ramon Gregorio of Lucent Research | June 28 to 30
- Women, Gender and Health with Dr. Oscar Noel Ocho – Director, The UWI School of Nursing (UWISoN) | July 11 to 18

For full details on registration and more, please visit www.sta.uwi.edu/news/ecalendar.

U, WE AND REFUGEES

June 21-27
The UWI St. Augustine

The Department of Modern Languages and Linguistics (DMLL) in the Faculty of Humanities and Education hosts U, We and Refugees – a joint Service-Learning Project in the TESOL teacher training programme with the Living Waters Community and Humanitarian Association of the Republic of Trinidad and Tobago.

They will host a series of public events:

- June 21 | 2 to 4pm | A Cross-Faculty Panel Discussion which includes representatives from United Nations High Commission for Refugees at Noor Hassanali Auditorium, Faculty of Law.
- June 23 | 6 to 7.30pm | Film screening of Warehoused at CLL Auditorium.
- June 27 | 6 to 7.30pm | In commemoration of the International Day in Support of Victims of Torture there will be a Film screening of Beneath the Blindfold at CLL Auditorium.

For more information, please visit the Campus Events Calendar at www.sta.uwi.edu/news/ecalendar.



WORLD COCOA AND CHOCOLATE DAY

October 6 to 7
The UWI St. Augustine

The UWI Cocoa Research Centre hosts their sixth annual World Cocoa and Chocolate Day – a two-day public expo celebrating the spectrum of cocoa and chocolate. On hand will be farmers, chocolatiers, chocolate and soap cosmetics makers,

For more information, please visit the Campus Events Calendar at www.sta.uwi.edu/news/ecalendar.

THE ART OF CORPORATE AND DIPLOMATIC COMMUNICATION

June 27 to 30
The UWI St. Augustine

The Diplomatic Academy of the Caribbean (DAOC) presents the Art of Corporate and Diplomatic Communication. This training module takes place June 27 to 30 at the DAOC with facilitator, Sharon Welsh, US-based Communications Consultant and Adjunct Professor at Georgetown University. The cost is US\$1,000. Early bird registration – US\$800.

For more information, please visit the Campus Events Calendar at www.sta.uwi.edu/news/ecalendar.



**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

