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Cuban passion for science and humanity

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LADY Salsa, the musical, recently mesmerised Malaysian audiences with an explosive mix of Cuban history, music and dance at a local highland resort. A group of researchers and scientists from Universiti Sains Malaysia which went to Cuba recently were equally mesmerised by the level of Cuban achievements in the fields of science and technology.

Cuba is perhaps best known to many as a far away island with nothing much to offer save for its world-renowned Havana cigars.

And of late, Cuba has indirectly come into the picture as a place where American prisoners are still being held at Guantanamo Bay military prison dubbed X-ray Camp.

But to appreciate what Cuba is all about is to know its history. That is why Lady Salsa is so riveting since it is an attempt to chronologically narrate the Cuban experience through song and dance.

Incidentally, this year, Cuba celebrates the 50th anniversary that marked the beginning of a guerilla war against President Ruben Fulgencia Batista's dictatorship on July 26, 1953.

It was led by a 26-year old lawyer, Fidel Castro Ruz, with a force of 165 men, but the rebellion failed. About half the rebels were killed, and Castro was sentenced to 15 years of imprisonment on the isle of Pinos. From then on, several more attempts at overthrowing the government were made. Batista was finally forced to flee Cuba on January 1, 1959.

The next day, Castro's men took Havana and, later, the city of Santiago. It was a significant victory for a guerilla force of 800 men over some 30,000 professional soldiers.

It was therefore not unexpected that the musical Lady Salsa climaxed with the revolution that brought down the Batista regime. July 26 was declared the Day of National Rebellion.

Another 'revolution' of sorts brewed following the downfall of Batista. This time, it was a 'revolution' of Cuban science and technology which, until recently, was a well-kept secret, at least to many Malaysians.

The visit of Prime Minister Datuk Seri Dr Mahathir Mohamad to Cuba in 1997 changed all that.

One well-kept secret is the Pedro Kouri Institute of Tropical Medicine, one of numerous leading scientific research institutes which the USM group was privileged to discover.

The institute was aptly called Cuba's jewel of tropical medicine in a recent article published by the World Health Organization (WHO) Regional Office bulletin Perspective in Health Magazine (2003, Vol. 8, No. 2).

The article is significant because it was written by the director of publications at the Global Health Council based in Vermont, the United States during her visit in April.

More significantly, much of what was written mirrors the observations and experiences of the USM team as described below.

Amongst others, the institute is a WHO/Pan American Health Organisation (PAHO) Collaborating Centre for Research and Training in Medical Malacology and Biological Control of Vectors and Intermediate Hosts. This is one of three such WHO/PAHO collaborating centres at the institute.

This is an indication of how the institute has evolved into a world-class player, especially in the global fight against tropical and infectious diseases.

The institute is manned by Cuba's top health scientists working on

important research ranging from parasitology, tropical medicine, infectious diseases, the treatment of HIV/AIDS to biotechnology.

The institute was established in 1937 by Pedro Kouri, an eminent scientist, then at the University of Havana, to focus on Cuba's most worrisome parasitic diseases such as malaria, filariasis, hepatic fascioliasis, amoebiasis and other intestinal parasites.

New methods of diagnosing and treating tropical diseases were developed.

At the same time, it trained students from different parts of the Americas including the US (despite its hostile outlook towards Cuba then).

After the downfall of Batista, its status as a centre of research was further enhanced.

Indeed, Paul Farmer, a professor of medical anthropology at Harvard Medical School, was quoted as saying that the institute is respected throughout Latin America and beyond.

It has carried out important basic science research, helped develop novel vaccines, trained thousands of researchers from Cuba and from the world and developed ties with researchers in the US too.

It also has cultivated strong scientific ties with internationally recognised programmes such as the UNDP Special Programme for Research and Training in Tropical Diseases.

These developments reflect the high level of confidence and credibility that Cuba has cultivated in the field of science and technology, particularly in the areas of health sciences.

It is therefore hardly surprising that, despite being subjected to years of economic sanctions, if not subversion by mightier economies, Cuba takes pride in its hard-earned achievements in the healthcare sector.

Data from the institute speak for themselves: the incidence of typhoid is about 0.1 per cent, bacterial meningitis 0.3 per cent and tuberculosis about 8 per cent.

All these can be attributed to the fact that Cuba has managed to develop no less than 12 vaccines against infectious diseases, making the incidences for such diseases nationwide very low.

In addition, Cuba was allegedly the first to eliminate polio in the Americas; malaria has been completely eradicated, while dengue outbreaks have ceased.

In fact, the institute is reportedly developing or preparing to test a recombinant dengue vaccine as well as a vaccine for HIV/AIDS.

Elsewhere in Cuba, a cholera vaccine and another for meningitis type B and C are being developed with Malaysian participation.

What is even more amazing is that such high quality work is found at every other places we visited - the Findaly Institute, Genetic Engineering and Biotech Centre, National Scientific Research Centre, and National Bio Preparations Centre - where the same norms and standards (as those adhered to at the Pedro Kouri Institute) are stringently observed.

The same degree of openness, passion and concern not only for Cuba, but for humanity, was evident.

The reason for this is best summed up by the director of the Pedro Kouri Institute, Dr Gustavo P. Kouri - son of the founder: "My country, my institute, my family, my people." He was also quoted as saying: "But at the same time, our president declared that this centre was not only for Cuba, but also for humanity."

This makes Cuba a unique place from which Malaysia can learn a lot, not only about science and technology, but equally important, how to better serve humanity.

NOTE: Universiti Sains Malaysia is hosting a Cuban Print Exhibition at the USM-ABN AMRO Art and Cultural Centre in Beach Street, Penang which ends on Nov 2. Admission is free.

* The writer is Vice-Chancellor of Universiti Sains Malaysia.
He led a delegation to Cuba recently and spearheaded two major
bioscientific collaborations between USM and Cuban research institutes.
NEXT WEEK: Understanding Cuban biomedical success