



Welcome from the President

I bring you New Year greetings as President of the Caribbean Academy of Sciences

The Academy has had quite a few collaborations this year, such as, that with the CFS in running workshops for Primary school teachers in STEM during this year. Two workshops were held in Kingston and Montego Bay in Jamaica and similar workshops were held in St Kitts Nevis and Dominica. I and a member of the Guyana Chapter have contributed a chapter on the Caribbean for a booklet by IANAS on the first 10 years of IBSE training in Latin America USA Canadian and the Caribbean has been launched. Two of our members have also contributed to another IANAS/IAP booklet on Food Security and Safety, and must be complemented on this effort. CAS is also engaged in addressing matters associated with water and water problems in the Caribbean. Our Treasurer leads efforts in this area. Our Water Focal point from Grenada is also assisting in this effort. Professor Badrie, one of our new Fellows has also contributed significantly to the Women in Science efforts. Our work on the Energy Committee from our Energy Focal Point (Jamaica Chapter) has also been praised.

Finally I would like to congratulate the Jamaica Chapter for taking up the challenge to plan and organize our Biennial Meeting and Conference in late November 2018. Please put this in your diary as it forms an important part of the 70th anniversary celebration of The University of the West Indies. Please be willing to participate and also allow your graduate students to participate as well.

The year so far has not been without its challenges. The major one has been the paucity of funds to keep the central body alive. A major part of the year has also been spent in trying to develop a strategic plan for the organization. This will require the input of all of our members and stakeholders. The Secretary is in the process of sending out questionnaires to all members and identified stakeholders. The Executive has outlined steps for the way forward. We are also working on attaining charitable status.

I take this opportunity to specially thank our hard working Administrative Secretary Mrs. Crossley for keeping that side of the work alive. I am very appreciative of the work being put in by our Secretary who has organized this newsletter. Finally without the work of our Treasurer, Foreign Secretary who looks after our website and our PRO the Academy would cease to exist. There is hope for a better future. It's over to the Chapters and Council to keep the flame alive.

Have a great 2018!
Winst. A. Mellows



Inside this issue

President's welcome.....	1
Clinical workshop.....	2
Book on Food & Nutrition.....	2
CAS & Science Education	3
Shell STEM Programme.....	3
Going Net Zero.....	4
New members	5
CAS 2018.....	6
Notes to Contributors.....	6

A peek inside this issue

- The Caribbean's first Net Zero building
- CAS makes strides in STEM education in T&T and the Caribbean
- Strengthening Clinical Research
- CAS 2018 Conference!

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2016-2018**

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PRO:

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Robert Lancashire

Strengthening clinical research

Dr. Patricia Sealy participated in a two-day workshop on strengthening clinical research capacity in low and middle income countries (LMICs) to tackle global health challenges on 3-4 July 2017 in the United Kingdom. This workshop was jointly organized by the UK Academy of Medical Sciences and the InterAcademy Partnership (IAP) for Health.

A wide range of skilled individuals is critical to create clinical research and knowledge, and to serve as a link between knowledge gained and new approaches to improve clinical health. It is therefore vital to get an understanding of the true capacity of trained and active clinical research workers within a country or geographic region. Such information can help develop policies and interventions to strengthen clinical capacities. The objectives of this workshop were:

Bring together evidence from Africa, Asia, Latin America and the UK on the current 'state of play' for the capacity of clinical researchers in LMICs.

Consider how countries are responding to the clinical research capacity gaps by discussing key challenges and barriers (including costs and financing) to having an adequate



Dr. Patricia Sealy

supply of clinical researchers.

On the basis of the evidence, provide solutions to the identified gaps that can be taken forward at a country and regional level.

Outline ways in which to develop the careers and skills pipeline of future leaders.

Consider lessons that can be learned by each country and region from the other

The output of this meeting will be a written report, which will inform future work by the Academy, IAP for Health, and others.

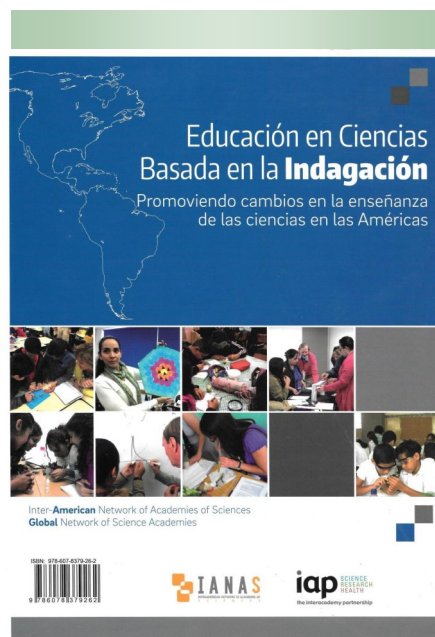
IANAS book on Food and Nutrition

The production of the IANAS (Interamerican Network of Academies of Sciences) book on Food and Nutrition Security Challenges in the Americas is in full swing. The country chapters have been submitted and reviewed. Dr. Wuddivira who is the Caribbean coordinator on this project, reported that the review comments on the Caribbean chapter was very encouraging and revision has been done and returned. Dr. Wuddivira also attended the Food and Nutrition Security Country coordinators' meeting in Peru on 13-17 March, 2017. He reported that he had discussions on the need for a book on the water situation in the Caribbean since the book on Urban Challenges in the Americas has a chapter on Grenada alone. The idea was well received and arrangements are already in the advance stage for the implementation of this project.

CAS recognized in Science Education

CAS is honoured to be featured in the book, "Inquiry Based Science Education: promoting changes in science teaching in the Americas" published by IANAS.

The Teacher Training Workshops conducted by CAS in Grenada teaching STEM to primary school teachers was featured.



CAS strives to promote STEM education not only in T&T but in the Caribbean

Shell STEM programme

The Caribbean Academy of Sciences (CAS) was invited to participate in the STEM programme run by Shell by Sacoda Serv which manages the programme. One aspect of the programme is the Academic Programme which mainly includes students from forms 1-3 in the Student Support Programme in selected secondary schools (the students are not limited to these schools.) The objective of the Academic Programme is to introduce students to STEM subjects from an early age so that they would be more inclined to choose science subjects and pursue STEM careers. Additionally, students are exposed to critical thinking and problem solving skills that can assist them in both STEM and non-STEM subjects. The programmes are facilitated on Saturdays at various schools during the school term from 9am-1pm.



research and how she got started in her field and the range of careers in entomology. Students also took part in a practical exercise where they got experience developing an identification key for insects.

On Saturday 28th November at St. Benedict's College, San Fernando Dr. Jo-Anne Sewlal conducted a session based on her expertise in arachnology. Where students were given a presentation on her

Members who are interested in participating in this programme can contact us.

Jamaica Chapter—Net Zero Energy Building Opens at UWI

Jamaica and the Caribbean's first net zero energy building was officially opened on Wednesday October 26 on The University of the West Indies' (UWI) Mona Campus.

The 2,300-square-foot structure, situated along Gibraltar Way, is designed as a model to encourage construction of sustainable and energy-efficient buildings throughout the region. As a prototype, it will demonstrate emerging and best practices in the built environment as it relates to energy efficiency, renewable energy and environmental design. The building will house the Centre for Advanced Research in Renewable Energy (CARRE), the first such centre in the Caribbean, promoting research in photovoltaic (solar), wind and biomass energy.

The Institute of Sustainable Development (ISD) at The University of the West Indies (UWI), Mona Campus, with global partners and local stakeholders, has embarked on a pioneering project to construct Jamaica's first Net Zero Energy Building.

The main objective of the project, initiated with the financial support of the Global Environment Facility (GEF) and the technical assistance of the United Nations Environment Programme (UNEP), is to research and develop practical working solutions that will transform building policies and practices.

The Net Zero Energy Building Project follows on from a previous project implemented by ISD, "Developing Design Concepts for Climate Change Resilient Buildings" (Build Better Jamaica Phase 1) which was sponsored by the Inter-American Development Bank (IDB) and by UWI. The goal of Phase 1 was to promote sustainability and climate change resilient buildings in the Caribbean. More information regarding Phase 1 is available [here](#).

"the Caribbean's first net zero energy building was officially opened on The University of the West Indies' (UWI) Mona Campus."

What is a Net Zero Energy Building?

A Net Zero Energy Building (NZEB) also known as a Zero Net Energy (ZNE) building or a Net Zero Building, is a building in which the total amount of energy used on an annual basis is roughly equal to the amount of renewable energy created on the site or at other renewable energy sources. As a result, these buildings do not increase the amount of greenhouse gases in the atmosphere.

The UWI Net Zero Energy Building will consist of an advanced prototype constructed as a demonstration of emerging and best practices in the built environment, including energy efficiency, ideal building layout, window detailing, efficient lighting and cooling.

It will also demonstrate:

- Renewable Energy – the use of photovoltaic (PV) panels

- Water Management – collection and reuse of rain and storm water as well as waste water from the building's operations.

- Environmental Design – overall design to build resilience to changing climatic conditions including hurricanes, storms, floods and drought as well as earthquake resistance.

NHT to participate in Net Zero Energy Building Project

The Net Zero Energy Building Project being established under the ISD at the UWI is already having a multiplier effect. First out of the blocks will be the National Housing Trust (NHT) which has signed an MOU with the ISD/UWI for the NHT headquarters in Kingston to be used as a demonstration project. While work proceeds to construct the Net Zero Energy Building at the UWI, the NHT will benefit from an assessment and implementation of the most advanced retrofit solutions to increase energy efficiency and performance of their existing buildings, their adjoining car park and the Emancipation Park. It is expected that with the retrofitting under the 2-year MOU delivering substantial environmental and economic benefits, the demonstration of the various facets of Net Zero building technology will encourage others in Jamaica to follow suit and inform new Net Zero construction.



Left: Prof Emeritus Tara Dasgupta (Fellow CAS), Dr the Honourable Andrew Wheatley (Minister of Science, Energy and Technology), Ms. Alexandra Karekaho (UNEP Representative), and Prof Tony Clayton (Fellow CAS)

Right: The Caribbean's first Net Zero Energy Building

Partners

A number of stakeholders are cooperating with the ISD, GEF and UNEP in the implementation of the UWI Net Zero Energy Building project. They include:

- Bureau Of Standards Jamaica
- Caribbean Academy Of Sciences, Jamaica
- Incorporated Masterbuilders Association Of Jamaica
- Inter-American Development Bank
- Jamaica Hotel & Tourist Association
- Jamaica Institution Of Engineers
- Jamaica Public Service Company Ltd.
- Jamaican Institute Of Architects
- Meteorological Service Jamaica
- Ministry Of Economic Growth & Job Creation
- Ministry Of Science, Energy & Technology
- National Housing Trust
- Office Of Disaster Preparedness & Emergency Management
- Planning Institute Of Jamaica
- Scientific Research Council
- University Of Technology Jamaica
- University Of The West Indies Mona

Welcome to our new members!

Ordinary Membership:

Mr. Ricardo D'Andrade (Trinidad & Tobago)

Mr. Gordon Deane (Trinidad & Tobago)

Prof. Sarra Gaspard (French Guiana)

Mr. Hayden Sinanan (Trinidad & Tobago)

FELLOW FOR 2017

Prof. Terrence Forrester (Jamaica)

MARK YOUR CALENDAR!



21st BIENNIAL GENERAL MEETING AND CONFERENCE 2018

Tuesday 27th November 2018 – Friday 30th November 2018

At

UWI Mona Visitors' Lodge & Conference Centre, Jamaica

(More information to follow)

Dear Readers,

We want to hear from YOU!
Comments may be edited for length and clarity.

Send your comments to:
joannesewlal@gmail.com

GUIDELINES TO CONTRIBUTORS

Articles on the natural history and environment are welcome especially those on Trinidad and Tobago.

Articles should not exceed 1,000 words (1 1/2 pages) and the editors reserve the right to edit the length. Images should be submitted as separate files.

Submit material to any of the following:

- 1) joannesewlal@gmail.com
- 2) secretariat@caswi.org

Deadline for submission of material for the 2nd Quarter 2018 issue of the Bulletin is March 1st, 2018.