



Message from the President

Our Academy of Science approaches the end of the year General meeting in Jamaica and the Conference. I wish to thank the Jamaica Chapter for undertaking this mammoth task. I wish also to thank all the persons associated with this effort. A request has been made for Chapters to nominate persons for 30th Anniversary awards and to supply photos of their meetings and activities to be archived. Nominations have also been invited for the CAS/TWAS Young Scientist Award.



**Prof. Emeritus Winston Mellowes
President, CAS**

We have been requested by IAP to respond to various initiatives, including a call for Proposals from member academies and observer organizations. CAS responded with three proposals jointly collaborating with NIHERST entitled, “Caribbean Icons”, Deep Sea Wonders 2” and Unfortunately the responses from Chapters left much to be desired. In terms of the Young Physicians Leadership Programme, Dr. Shuvra Dasgupta of the Jamaica Chapter has been nominated and has been accepted to represent CAS at this programme. Under IANAS activities, IANAS Women in Science Meeting in Brazil CAS was represented. A nomination was also made for the IANAS Anneke Levelt Sengers Prize Women for Science in Americas.

We have been proceeding with our Strategic Planning exercise for the years 2018 – 2023. Under the goal areas of regional influence, Scientific development and professional development. Questionnaires were sent out to our members. The responses were disappointing. This comment relates to many messages sent out for response from the Chapters. Little was heard from many Chapters and the response to attending Council Meetings was disappointing to say the least.

The consultant for the Strategic Plan, Ms. Christa Sankarsingh, went



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- CAS celebrates its 30th anniversary
- CAS continues making strides in representing the Caribbean
- CAS 2018 Conference!

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through the responses obtained and came up with the overall impression that the membership viewed CAS more as a Marketing and Promoting institution rather than focusing on research. This discrepancy in views between the Central Body and the membership was viewed as positive in that it showed that CAS has no solid image like other institutes like NIHERST. Therefore, this provides an opportunity to create and brand CAS.

Among the advice given was the hiring of a Marketing/Promotions specialist independently or referred from the Dept. of Marketing and Communications (UWI). She also advised that the CAS include marketing on social media channels including Facebook and Instagram. Devise methods to get membership to talk to the Chapters and Central Executive.

Representatives of the Caribbean Small Island Developing States (SIDS), including Associate Members of the Economic Commission of Latin America and the Caribbean (ECLAC), met in San Pedro, Belize, from 7 to 9 August 2018 in preparation for the Mid-Term Review (MTR) of the SAMOA Pathway to be held in New York in September 2019, as mandated by the UNGA Resolutions 70/292, 71/225 and 72/217. The Caribbean regional preparatory meeting ('the Meeting'), for the SAMOA Pathway Mid-Term Review was attended by the participants from Antigua and Barbuda, Bahamas, Barbados, Belize, Cuba, Dominican Republic, Grenada, Guyana, Jamaica, Saint Lucia, St. Kitts & Nevis, St. Vincent & The Grenadines, Trinidad & Tobago and Associate members of ECLAC attended and observers, including: Aruba, British Virgin Islands, Curacao, Saint Maarten.

Among other things, the Meeting affirmed that the SIDS agenda for sustainable development comprises the Barbados Programme of Action (BPOA), the Mauritius Strategy for Implementation (MSI) and the S.A.M.O.A Pathway, all of which reaffirm that SIDS remain a special case for sustainable development, in view of their unique vulnerabilities and that they remain constrained in meeting their goals in all three dimensions of sustainable development.

The meeting reaffirmed that climate change is one of the greatest challenges of our time, and acknowledged that the impacts of climate change including sea level rise continue to pose a significant threat to Caribbean SIDS and their efforts to implement the SAMOA Pathway. In this context, the Meeting reaffirmed the imperative of limiting the increase in average global temperatures to below 1.5 degrees Celsius above pre-industrial levels,

The Meeting stressed that while Caribbean SIDS have made some progress in meeting their sustainable development priorities, these countries continue to face major challenges and highlighted in particular, the lack of economies of scale in production, high vulnerability to environmental stresses, acute exposure to external shocks, excessive reliance on external financial inflows and on few export and import markets, limited transport and communications, reduced scope for economic diversification and limited human resources, compounded by high levels of migration of skilled individuals, high unemployment youth and women. This has resulted in stalled progress in some areas and reversal of development gains in others.

CAS presence at CILAC Meeting

CAS President, Prof. Emeritus Winston Mellowes has been invited to attend a meeting of CILAC in Panama on October 22 to 24th 2018. CILAC is the Open Science Forum for Latin America and the Caribbean that opens a regional space for the exchange of ideas and experiences and seeks to transform the region through the science, technology and innovation policy (CTI) for what brings together leaders of the region and the world every two years. The discussions and debates that take place in CILAC contribute to the creation of a regional agenda of Science and Technology (STI) policies for the achievement of Sustainable Development Goals (SDGs).

Celebrating 30 years of contributions by the Caribbean Academy of Sciences towards Development of Scientific Activities in the Caribbean Region

The year 2018, is a year of celebration – celebration of 30 years of science advocacy programs of the Caribbean Academy of Sciences and 70 years of educational services of the highest order by The University of the West Indies. It is a great pleasure for me, on behalf of the Caribbean Academy of Sciences, Jamaica to extend congratulations to both organizations for their tremendous achievements. Since the establishment of the Academy in 1988 in Trinidad by a handful of academics, it has grown enormously and has confirmed its position as an authoritative voice on science and technology in the region and facilitates interaction amongst scientists across all disciplines (including Social Science) in the Caribbean. The Academy has now established seven chapters in seven countries in the Caribbean region – Antigua, Barbados, Guyana, Guadeloupe, Grenada, Jamaica and Trinidad and Tobago. Since its establishment in 2002, the Jamaica Chapter has been a centre of attention among various scientific organizations. CAS has organized several Workshops through the Jamaica Chapter. These are - UNU/UNEP Coastal Pollution, IAP Workshop on Digital Knowledge Resources in Developing Countries and PCB Elimination Network. Specifically, I would like to mention that we made a significant progress in the area of Digital Knowledge Resource in the Caribbean region. The credit goes to Professor Lancashire, Secretary of CAS, Jamaica, who has been working very closely with IUPAC, CODATA and IAP in this direction. The Chapter has strengthened the relationship with various International Organizations including the International Council of



Prof. Tara Dasgupta
President, CAS (Jamaica Chapter)

Science (ICSU), Inter-American Network of Academies of Sciences (IANAS), Caribbean Community of Sciences (CCC), International Union of Pure and Applied Sciences (IUPAC), Inter Academy Panel (IAP) and Academy of Sciences for Developing Countries (TWAS). Dr. Marvadeen Singh-Wilmot, lecturer in Chemistry at UWI, Mona was nominated by the Chapter to attend the World Economic Forum in China. She became an affiliated member of TWAS and member of the Inter Academy of young Scientists. The CAS Chapter has been associated with International Union of Pure and Applied Chemistry (IUPAC) since the inception of the Chapter and has been selected as one of 25 National Adhering Organizations (NAO) in the World.

During the last few years CASJ has been involved in developing communications between public and private sector organizations in the areas of Agriculture and Energy. CASJ organized seven (7) Agricultural Forums on various important agricultural products.

The Caribbean region is currently facing serious problems in tackling climate change. At the same time the energy cost is nearly crippling the economic structure of many Caribbean countries. CASJ has been active in public

advocacy programs pertaining to both climate change and energy. CASJ has been a major stakeholder of a GEF/ UNEP/UWI project on the construction of a Net Zero Energy Building (NZEB). CASJ has participated and organized five workshops on this topic and intends to popularize the concept of NZEB in the other Caribbean countries.

Although we are all very pleased with the achievements of the Jamaica Chapter, there is still a lot to be done. One of our goals is to raise the level of scientific consciousness and increasing public understanding of the importance of science and technology in human progress. However, we cannot possibly achieve this goal without the help of the regional leaders and policy makers. We have not been very successful in convincing the political leaders that the region can only achieve sustainable economic development through science and technology. Hence, we are organizing the 21st Annual General Meeting of CAS in Jamaica on a theme – Science, Technology and Innovation – Vehicles for a Knowledge Based Economy. We all hope this 4-days conference will be a success story of the Caribbean Academy of Sciences.

NEWS ON OUR MEMBERS

CAS/UWI participation at the Inter-American Network of Academy of Sciences (IANAS)/Brazilian Academy of Sciences, Rio de Janeiro, Brazil

Prof. Neela Badrie
CAS (Trinidad & Tobago Chapter)

Professor Neela Badrie, Ms. Sophia Balfour and Dr. Taneisha Edwards attended the Inter-American Network of Academy of Sciences (IANAS) Women for Science Focal Points Meeting and the Workshop “Promoting Gender Equity in Science: The View of Young Scientists” at the National Observatory Museum, Rio de Janeiro, Brazil August 20th to 22nd, 2018. The meeting and workshop were hosted by the Brazilian Academy of Sciences. Professor Badrie is the Caribbean focal point for the Inter-American network of Academy of Sciences (IANAS) /Caribbean for Women in Science

and is a fellow of Caribbean Academy of Sciences and the Third World Academy of Sciences, Italy. Ms. Balfour and Dr. Edwards received financial support from The World Academy of Sciences (TWAS) and the Brazilian Academy of Sciences.

Miss Balfour’s research presentation was on the “UWI Young Researcher’s Perspective on Gender Equity in Science” which showcased gender equity from a young scientist perspective at the St Augustine Campus of The UWI. Data was obtained from UWI annual student statistic reports, a review of the

literature on Caribbean students in science and recent graduates. Results from St Augustine Campus showed a 2 to 1 enrolment ratio of female to male students in most science-related faculties except for Engineering. Both males and females were given equal access to teaching materials and funding for research. While females were more prevalent in the tertiary classrooms, their male counterparts were given equal opportunity at job interviews and at places of employment. These findings contrasted those of fellow presenters from Central and South America who indicated that some families and educators were more supportive to the successes of boys more than girls from an early age. The overall aim of this meeting was to foster collaborations and the exchange expertise among participants from Latin America and the Caribbean region. A general trend highlighted at the meeting was that most women had a temporary plunge in their careers and publications after marriage, and more so, after the birth of their children for first few years. Fellow participants highlighted the implementation of lactating rooms for working moms and the need for extended paternity leave for men. To move forward, irrespective of gender, there is the need to support each other!

Dr. Edwards presentation was on the *"Promoting Gender Equity in Science: The View of a Young Jamaican Geoscientist."* According to Taneisha, despite having a 1:1 gender ratio of student enrolment in the Faculty of Science and Technology, at the UWI, Mona, Jamaica, gender inequity in STEM fields such as engineering still persist. Furthermore, the perceived gender equality in enrolments at this and other Jamaican universities mask a bigger problem of lower male enrolments. The presentation highlighted that the Government of Jamaica is tackling the problem and sensitising the population in promoting STEM in schools and late the involvement and encouragement of girls in STEM subjects and highlighted the roles of UWI students are playing in motivating girls by being involved in STEM at national and international competitions. She had interviewed young colleagues and friends who are working in STEM in Jamaica to understand the biases and inequities perceived. These were

presented in some case studies where barriers were introduced when women successfully compete against their equivalent in talent, skillset and experienced male counterpart. The talk indicated that like elsewhere in industries globally, ladies have to fight to get the same opportunities as men, some ladies have not bothered to fight and have accepted of the instructed support or office role which unfortunately comes with less pay, less room for promotion and less perks. Her presentation highlighted her own journey from high school geared towards science subjects, her experiences in industry which were very similar to her peers and her embrace towards academia which she perceived to be a more level playing field. At the workshops, she became motivated by many ideas of methods of how to bridge the gap between actively researching in STEM and making an impact at the community level, particularly at the elementary age of girls where it really matters. As she is already involved in female empowerment through the Caribbean Women Honors and Empowerment Network, she is more motivated to have a platform to launch movements that can integrate and expose girls at the elementary level to little fun things that they can make, build or solve using science to remove those stereotypes that keep girls out of STEM fields. She has also realized that because of the situation of Jamaica with many women in management role and more females enrolling in university than males, that we have not really examined the role of teachers and other propagators of stereotypes and barriers that drive women out of stem fields.



From Left to Right: Ms. Sophia Balfour, Dr. Taneisha Edwards and Professor Neela Badrie

MEET THE BRAZIL TEAM

Ms. Sophia Balfour is a Ph.D. student in Food Safety and Quality, who is about to submit her thesis for examination. Her supervisors are Professor Neela Badrie and Dr. Adesh Ramsubhag. At the Department of Food Production, Faculty of Food and Agriculture, the University of the West Indies, St. Augustine, Trinidad and Tobago, she has served as a teaching assistant and laboratory demonstrator in microbiology, as well as field technician for CARICOM Food Security Project. She has participated in several conferences, co-authored a book chapter and published articles on food safety and shrimp quality.

Professor Neela Badrie of the Faculty of Food and Agriculture, the University of the West Indies, St. Augustine, Trinidad and Tobago presented on the activities of the Caribbean Academy of Sciences(https://www.ianas.org/documents/CAS_Report_Rio_Janeiro_Brazil_2018_12th_August_2018.pdf) .She is involved in the IANAS Prizes Committee and is involved in the writing of a chapter section on “Gender Perspectives on Water Quality in the Caribbean”. This chapter has inputs from Canada, Bolivia and Panama on behalf of IANAS.

Dr. Taneisha Edwards graduated from the University of the West Indies, Mona Campus, Jamaica with a BSc in Geography and Geology in 2008. She started a research masters in Geology and then transferred into a PhD Programme in 2012. She went on an exchange programme to the University of Toronto, Canada and returned to Jamaica and recently completed her PhD. Her PhD thesis was entitled: Sedimentology and stable isotope geochemistry of geologically recent clastic and carbonate sedimentary rocks (beachrocks) in Jamaica. She is an assistant lecturer in geography at the Department of Geography and Geology, the University of the West Indies, Mona, Jamaica. Her areas of specialization are marine geology, sedimentology and geochemistry. Taneisha is the assistant district manager for the Kingston Chapter of the Caribbean Women Honours and Empowerment, a non-profit group.

Prof. Anthony Clayton to Chair Energy Programme for the Americas

Professor Anthony Clayton, the Professor of Caribbean Sustainable Development, of the Institute for Sustainable Development in the University of the West Indies, has been appointed Chair of the Energy Program of the Inter-American Network of Academies of Sciences (IANAS).

The Energy Program is an exceptionally important part of the work of IANAS, as energy policies, practices and technologies underpin all aspects of society today. It is impossible to solve the existential threat of climate change, for example, without developing the new energy policies and technologies needed to support a growing world population.

IANAS represents every Academy of Science in both North and South America, and brings together the most distinguished scientists and academics in the Americas.

The appointment is a remarkable tribute to Professor Clayton's work in the area of cleaner technology and energy policy. He is now positioned to lead this critically important program, which will help to map and shape energy policies towards a Sustainable Energy future for the billion people that live in the Americas.

Part of Professor Clayton's role as Chair will be to lead his committee in producing a new Guide to

a Sustainable Energy Future for the Americas.

Another task will be the development of a collaborative approach to address energy and water problems. Energy purification, desalination and pumping are usually very energy-intensive operations, so it is important to find solutions to both energy and water supply problems at the same time. His committee will also map out the transition pathways to a more sustainable future for all the nations of the hemisphere.

The Inter-American Network of Academies of Sciences (IANAS) was founded in 2004 as an organization utilizing scientific collaboration to build scientific and technological capacities and strengthen relationships among the countries of the Americas as a tool for societal development.



Prof. Anthony Clayton, CAS Fellow

CONGRATULATIONS!



Dr. Patricia Sealy

Drs. Jo-Anne Sewlal and Patricia Sealy were appointed to the Steering Committee for the InterAcademy Partnership (IAP) project "Respect and Dialogue"



Dr. Jo-Anne Sewlal

MARK YOUR CALENDAR!



21st BIENNIAL GENERAL MEETING AND CONFERENCE 2018

Thursday 29th November 2018 – Sunday 2nd December 2018

At

UWI Mona Visitors' Lodge & Conference Centre, Jamaica

More details on www.caswi.org

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 1st Quarter 2019 issue of the Bulletin is December 1st, 2018.