



DEPARTMENT OF CHEMISTRY

Departmental Report August 2020 - July 2021

Dr. Donna Minott-Kates Head Of Department

OVERVIEW

In the past academic year, the Department of Chemistry was challenged by the circumstances of the Covid pandemic with restricted movements, required physical distancing and masked operations. Virtual instruction predominated, however, the Department continued to offer face-to-face laboratory sessions, albeit for reduced sessions. All staff must be credited for their role in ensuring the safe delivery of our laboratory programme. The Department capitalised on the opportunities afforded through virtual operations for increased and wider-reaching outreach, from which our seminar series in particular benefited, having both local and international presenters and attendees. Limited changes to the academic programme saw a slate of revised Introductory Chemistry courses being introduced at the start of the academic year. Research progress was stymied by restrictions in movement (local and international) and severe financial constraints. The Department's research infrastructure suffered as a result, and in addition, several research graduate students transitioned to part-time registration due to insufficient financial support. Nevertheless, faculty members published a total of 14 journal articles (7 with graduate students) and four book or report chapters but there were only limited conference presentations. During the period April 19-23, 2021, the Department underwent its Quality Assurance Review, which was facilitated by the UWI's Quality Assurance Unit. The review team, which included Professor Alexandre Brolo (University of Victoria, Canada; Team Lead & External Representative of the Chemistry Discipline), Dr. Avril Williams (UWI, Cave Hill Campus,

Internal Representative of the Chemistry Discipline), and Dr. Audia Barnett (Local professional, Jamaica), met with members of the Department, students and associates of the Department virtually. The Department of Chemistry's Scholarship and Awards Fund was initiated with a contribution of over J\$1.6m received from distinguished alumnus Dr. Conrad Douglas through his company, Conrad Douglas & Associates Limited and its subsidiary Environmental Science & Technology Ltd. This was facilitated through large purchases of two special publications: The Department of Chemistry, UWI, Mona (a chronicle of the Department's history from 1948-2008) and From Logwood to Slowpoke: A Biography of Professor Gerald Lalor co-authored by Professors Lancashire and Magnus and Dr. Douglas and Professor Lancashire, respectively. The commercial arm of the Department continued to thrive, with The UWI Mona Analytical Chemistry Laboratory (UWI MAC) receiving continuation of accreditation to the ISO/IEC 17025:2017 standard. At the end of the academic year, forty-seven (47) students graduated with a BSc in one of several majors from the Department. Of these, two received first class honours, and sixteen graduated with upper second class honours. In addition, thirty Chemistry minors were awarded. Seventeen students completed the requirements for higher degrees; there were two (2) PhD, two (2) MPhil and thirteen (13) MSc graduates.

WORKSHOPS

CAPE Chemistry Workshop 2021

A series of five (5) one-day virtual CAPE Chemistry workshops was held in January, with lecturers presenting on topics such as Chromatography, UV, IR and Mass Spectroscopy. Graduate students assisted with virtual experiments, videos, and interactive tutorials on the same topics. Over the course of the week, over 1085 students and teachers from 48 schools were hosted.

BSJ, PCQI Workshop

Training for food industry personnel was provided by the Department which hosted the Bureau of Standards (BSJ) PCQI workshop in July. Participating companies included Tijule, Caribbean Flavours and Fragrances, Central Packers, Kremi, and Mighty Spice Jamaica Limited.

Chemistry Festival

The Department hosted its first Chemistry Festival event on August 18th, sponsored by the American Chemical Society. Just over 100 regional and international participants from Jamaica, Guyana, Canada, Barbados, and Nigeria attending virtually.

UWI/MOEYI Virtual Workshop for CAPE Teachers

In collaboration with the Ministry of Education, Youth and Information, the Department of Chemistry hosted a Virtual CAPE Chemistry Intervention Workshop for Teachers. Targeted areas of poor performance in chemistry were addressed and best practices for the teaching of chemistry was explored to assist teachers with strategies to increase student engagement and improve overall attitude towards chemistry.

STAFF MOVEMENTS

Dr. Donna Minott Kates was appointed as the new Head of Department. Dr. Norbert Campbell joined the staff as Lecturer and OESH Programme Coordinator and Mr. Michael Henry was permanently appointed as a Laboratory Technician. Three academic staff members were promoted to the rank of Senior Lecturers, namely, Dr. Nadale Downer-Riley, Dr. Andrea Goldson-Barnaby and Dr. Peter Nelson. Dr. Marvadeen Singh-Wilmot, was appointed as Associate Dean, Student Experience for the 2021-2022 academic year. During the course of the year, the following staff members bid the Department farewell: Mrs. Mitzie Samuels, Mr. David Anderson, Mrs. Beverley Findlay (retired), Mrs. Winnifred Worrell (retired), and Prof. Mohammed Bakir (retired). The Department was saddened by the passing of Professor Henry Ellis, Professor Emeritus Kenneth Magnus, Mr. Krishna Deonarine, Ms. Diandra Thompson, all who gave invaluable service to the Department, the University and the wider society. The Department was also saddened by the death of one of its PhD candidates, Mr. Trevor Ramikie.

STAFF AND STUDENT ENGAGEMENT ACTIVITIES

T&S Staff Appreciation Day

In November the Department's annual Technical and Service Staff Appreciation Day was celebrated; members of the technical and service staff enjoyed available refreshments and were presented with tokens of appreciation.

Teachers' Day

Lecturers of the Department expressed their surprise at being included in the wider Teacher's Day celebration. They were lauded by way of an email and were presented with small tokens. Lecturers were quite appreciative of the gesture, with some persons indicating that this was the first time that they had received such recognition since joining the University.

DEPARTMENT SEMINAR

Dr. Marvadeen Singh-Wilmot continued the coordination of the department seminars, organizing eighteen (18) engaging and informative seminars covering a wide range of topics, which were delivered by visitors, faculty and postgraduates; seminars delivered by virtual visitors to the department are listed below:

- Dr. Alison Gajadhar, Management Systems Specialist and Managing Director, KMA Consulting Ltd., "Creating Systemic Innovation: A Journey Within a Small Island Developing State."
- Dr. Kathryn Murray, Research Scientist, Quadram Institute of Bioscience, Norwich, UK, "What Really Happens When We Eat? -A Discussion on Digestion and Digestive Disorders."
- Professor Amal Amim, Associate Professor of Nanotechnology/Polymers, National Research Center, Egypt, Founding Chair of Women in Science without Borders (WISWB), "Scientific Networking is a Successful Way for Influential International Relations."
- Dr. Kenesha Wilson, Assistant Professor, College of Natural and Health Sciences, Zayed University, Abu Dhabi, "Scholarly Approaches to Teaching and Learning General Chemistry in Higher Education."
- Dr. Kamaluddin Abdur-Rashid, Founder and Director of Kare Chemical Technologies Inc., Ontario, "Catalytic Synthesis of Cannabinoids."
- Dr. William Irvine, Research Fellow, Natural Products Institute, The UWI, "Painting the PI3Kture with Molecular Dynamics."

- Dr. Alvin Holder, Associate Professor in Chemistry, Old Dominion University, Virginia, "Synthesis, Characterization, and Catalytic Studies of New Cobalt Complexes for the Production of H₂ in Acidic Media."
- Dr. Chenielle Delahaye-McKenzie, Science Programme Manager, Science Division, Ministry of Science, Energy and Technology, "Closing the Gap, Science MoonShot Jamaica!"
- Dr. Jacqueline Bisasor-McKenzie, Chemistry Department Alumnus and Chief Medical Officer of Jamaica, "A Crucible moment."
- Dr. Terry-Ann Reid and Dr. Scott Van Ornum, Concordia University, "Master of Science in Product Development."
- Dr. Michael Forde, Lecturer, Department of Chemistry, UWI, St. Augustine, "No Small Odyssey - Small Particles Great Impact."
- Mr. Lindon Falconer, Electronics Engineer, Lecturer and Head of Electronics Engineering, Faculty of Engineering, UWI, "Modelling the Effects of Hearing Aid Algorithms on Speech and Speaker Intelligibility as Perceived by Listeners with Simulated Sensorineural Hearing Impairment."
- Dr. Tashane Haynes-Brown, Lecturer and Coordinator of Undergraduate Programmes in the School of Education, and Mr. Miguel Ison, PhD candidate, "Creating Engaged Learning Experiences: Meaningful Digital Delivery and Assessment."
- Mrs. Sharon Williams-Brown, Senior Counsellor and Licensed Counselling Psychologist, University Health Centre, "You Can't Pour From An Empty Cup."
- Professor Alexandre G. Brolo, Professor of Chemistry, University of Victoria, Canada, "Nanotechnology with precious metals: From Covid 19 diagnostic to single molecule spectroscopy."

Staff Awards

A number of staff members were recognised and awarded at the annual Faculty of Science and Technology award ceremony. They were: Mrs. Winnifred Worrell (for excellence in the provision of support services (UAWU)), Mrs. Tracia Johnson-Blair (for excellence in the performance of administrative duties (MONATS)). Drs. Peter Nelson and Andrea Goldson-Barnaby were recognised as recipients of the Principal's Research Award for the Most Outstanding Researcher/Research Activity.

Long service awards recipients were Mr. Winston Smith (40 years), Dr. Raymond Reid and Mr. Winston Chambers (21 years), and Mr. David Anderson (15 years).

OUTREACH ACTIVITIES

Donation to the SEBL

Several resource materials were donated to the Science & Engineering Branch Library (SEBL) in an effort to assist the SEBL with establishing its "FST Founders Memorial Collection". Donated resources included copies of the books *The Department of Chemistry*, UWI, Mona and *From Logwood to Slowpoke: a Biography of Professor Gerald Lalor*. Documents relating to Professor Cedric Hassall were also donated.

Kid's Science Series

The Kid's Science Series was informally launched geared towards reaching out to budding young scientists through the exploration of simple science experiments and the presentation of short talks surrounding various science topics.

IUPAC Global Women's Breakfast 2021 (UWI)

In February, the Department, through its outreach organizing team of Drs. Ainka Brown, Marvadeen Singh-Wilmot, Andrea Goldson-Barnaby, and Joyann Marks, in collaboration with the UWI, St. Augustine and Cave Hill campuses, hosted a virtual IUPAC Global Women's Breakfast. The UWI team was among over 150 organizations worldwide hosting events in line with the global theme "Empowering Diversity in Science". Of specific focus for the UWI edition was a panel discussion on the role of visibility, connection, and collaboration in advancing opportunities for Caribbean women in science.

International Day of Women and Girls in Science

Also in February, in celebration of the United Nation's International Day of Women and Girls in Science, a special seminar program was organized in the Department's Thursday Seminar slot. Guest Speaker for the event was Dr. Jacqueline Bisasor-McKenzie, Chemistry Department Alumnus and Chief Medical Officer of Jamaica.

Virtual Science Fair

The Department's Chemical Society participated in the Virtual Science Fair competition organised by the Faculty of Science and Technology Guild Committee. The competition aimed to widen students' exposure to the opportunities afforded by science as well as to give students a chance to show their talents/skills. A cash prize for the winning video entry under the theme Bioplasticity was sponsored by the Department.

Inaugural Commonwealth Chemistry Congress

Several staff members, graduates and young scientists participated in the Inaugural Commonwealth Chemistry Congress which was held virtually in May. Dr. Marvadeen Singh-Wilmot, a member of the organizing committee, was featured in a short video collaboration compiled by Commonwealth Chemistry.

FST virtual series: Fighting Covid-19: Science in Action Forum

The Faculty of Science and Technology (FST) hosted a special virtual edition of its Science in Action Forum with a three part series moderated by the Department of Chemistry's Dr. Marvadeen Singh-Wilmot. The focus of the forum was on "Fighting Covid-19". Two Chemistry lecturers, Dr. Ainka Brown, Dr. Debbie-Ann Gordon-Smith, and graduate student Mr. Marcel Denny gave presentations at the forum.

The Science Summer Outreach Series

The Science Summer Outreach Programme, which was sponsored by the American Chemical Society, was held throughout the month of July. The programme was aimed at getting primary and high school level students (local and international) interested in science by inviting them to participate in several science-based activities. These included: An ACS Virtual Movie Event, Virtual Tours of the Discovery Bay Marine Lab, and guest lectures presented by local and international science professionals. Schools from across Jamaica, as well as select schools from Trinidad and Canada participated in the series.

ACCESS

STUDENT AWARDS

Again, due to the Covid-19 pandemic, the 2020/2021 AY award ceremony for the Faculty of Science and Technology was staged virtually. Scholarship and prizes for undergraduate students in the Chemistry Department were awarded as follows: **Samonette Morgan** (The Cedric Hassall Scholarship), **Samoya James** (The Garfield Sadler Award), **Chad Buckle** (The Pavelich/Honkan Prize), **Nadesha Pinnock and Justin Gooden** (The Leonard J. Haynes Award), **Nadia Layne** (The Kenneth Magnus prize for Applied Chemistry), **Rochelle McKenzie** (The Willard Pinnock Prize), **Shemar Burrowes** (The Food Chemistry Prize), and **Truddi Clarke** (The Bert Fraser-Reid Award). Postgraduate student, **Mr. Mario Christie**, was awarded a Fulbright Faculty Development Scholarship under the Latin American Scholarship Program of American Universities (LASPAU) to pursue a PhD in environmental science at SUNY College of Environmental Science and Forestry. MSc FAPT student, **Jacquél Johnson**, won a cash award of USD200 in a Food Science essay writing competition sponsored by Prof Courtney Simons. Prof Simons, originally from Jamaica, is currently an Associate Professor at Wright State University.

Dr. **Zeyar Min** and Mr. **Jermaine Smith**, graduate students supervised by Dr Marvadeen Singh-Wilmot, emerged winners from a field of 108 Early Career Chemists at the Commonwealth Chemistry Poster Competition "Commonwealth Chemistry Posters – Partnership for the Goals" (August 25-27, 2020) with entries in the category Energy & Materials.

BOOK LOAN SCHEMES

The Department continues with the operation of the book loan scheme for undergraduate students. The demand for the books at the introductory level continues to outnumber those for the preliminary and advanced courses.

STUDENT ENROLMENT

Student enrolment for the 2020/2021 academic year was as follows: Preliminary (115), Introductory (478), Advanced (209), Postgraduate (Research – 30, MSc – 42).

PUBLICATIONS

- **Daley, S. K., & Downer-Riley, N.** (2020). The biomimetic synthesis of balsaminone A and ellagic acid via oxidative dimerization. *Beilstein Journal of Organic Chemistry*, 16(1), 2026-2031. <https://doi.org/10.3762/bjoc.16.169>
- **Brooks, R., Goldson-Barnaby, A., Bailey, D.** (2020). Nutritional and medicinal properties of *Phyllanthus acidus* L. (Jimbilin). *International Journal of Fruit Science*, p 1-5. <https://doi.org/10.1080/15538362.2020.1830013>
- **Nwokocha, C.R., Gordon, A., Palacios, J., Paredes, A., Cifuentes, F. Francis, S., Watson, J., Delgoda, R., Nwokocha, M., Alexander-Lindo, R., Thompson, R., Minnott Kates, D., Yakubu, M.A.** (2020). "Hypotensive and antihypertensive effects of an aqueous extract from Guinep fruit (*Melicoccus bijugatus* Jacq) in rats". *Scientific Reports*, 10, 18623 (2020). <https://doi.org/10.1038/s41598-020-75607-3>
- **Davis, D., Simister, R., Campbell, S., Marston, M., Bose, S., McQueen-Mason, SJ, Gomez, LD, Gallimore, WA, Tonon, T.** (2020). Biomass composition of the golden tide pelagic seaweeds *Sargassum fluitans* and *S. natans* (morphotypes I and VIII) to inform valorisation pathways. *Journal: The Science of the Total Environment*, 15 Oct 2020, :143134 DOI: 10.1016/j.scitotenv.2020.143134 PMID: 33148447
- **Alexander-Lindo, R.L., Porter, R.B.R., Nwokocha, C.R., Lattibeaudiere, K.G.** (2020). The phytochemical and pharmacological screening of three crude extracts of *Desmodium canum* (**strong back**). *Clinical Phytoscience*, 6, 70. <https://doi.org/10.1186/s40816-020-00220-w>
- **Lattibeaudiere, K., Porter, R., Alexander-Lindo, R.L.** (2020). The isolation of hypoglycaemic compounds from *Desmodium canum* and their synergistic effect on blood glucose levels in euglycaemic Sprague-Dawley rats. *Evidence-Based Comple-*

mentary and Alternative Medicine. 2020 Article ID 9465139, 9 pages. <https://doi.org/10.1155/2020/9465139>

- **Lorraine, S.,** Abdur-Rashid, K., Jia, W., Abdur-Rashid, K. **Maragh, P., Dasgupta, T.** (2020) Biaryl diphosphine ligands and their ruthenium complexes: Preparation and use for catalytic hydrogenation of ketones. *Inorganica Chimica Acta*, 511, 119850. <https://doi.org/10.1016/j.ica.2020.119850>
- **Mitchell, S.F.,** Gunter, G., **Mulder, W.H.** (2021). The palaeoecological significance of tubes, ribs, pallial canals and flanges in caprinoid rudist bivalves. *Palaeogeography, Palaeoclimatology, Palaeoecology*, Volume 562, 1100768. <https://doi.org/10.1016/j.palaeo.2020.110078>
- **Redway, A., Higgins, R., Jackson, Y., Downer-Riley, N.** (2021). Alternative Approach to the 2-Oxopyrano[3,2-c]quinoline Core, *Heterocycles*, DOI: 10.3987/COM-19-14115. <https://www.heterocycles.jp/newlibrary/downloads/PDF/26379/102/8>
- **Rambaran, T.F.,** Ginigini, J., McLenachan, P.A., **Bowen-Forbes, C.S., Mitchell, S.A.** (2021). Morphological characterization of Wild *Rubus rosifolius* (Rosaceae) plants growing in Jamaica prior to agricultural pursuits. *Caribbean Journal of Science*, 51(1): 1-13. <https://doi.org/10.18475/cjos.v51i1.a1>
- **Clarke, K., Porter, R., Facey, P., Yee, T., Thoms-Rodriguez, C.** (2021). Chemical composition and biological activities of *Pimenta richardii*. *Flavour and Fragrance Journal*, 36(2): 272-279. <https://doi.org/10.1002/ffj.3642>
- **Augustine, D.A., Bent, G.-A., Nelson, P.N.** (2021) Mechanistic evidence for the effect of sulphur-based additive: methionine, on acrylamide reduction, *Food Additives & Contaminants: Part A*, 38:8, 1324-1331, DOI: [10.1080/19440049.2021.1925166](https://doi.org/10.1080/19440049.2021.1925166)

- Morrison, I.J., Zhang, J., Lin, J., Murray, J.E., **Porter, R.**, Langat, M.K., Sadgrove, N.J., Barker, J., Zhang, G., Delgoda, R. (2021). Potential chemopreventive, anticancer and anti-inflammatory properties of a refined artocarpin-rich wood extract of *Artocarpus heterophyllus* **Lam.** Scientific Reports, **11**, 6854. <https://doi.org/10.1038/s41598-021-86040-5>
- **Bakir, M., Lawrence, M.A.W.**, Johnson, J., McMillen, C. (2021). Physicochemical and X-ray crystallographic properties of the first rhenium compound of benzophenone thiosemicarbazone (bptsc), fac-[Re(CO)₃(κ²-Nim,S-bptsc)Cl]. Journal of Molecular Structure, 1235, 130135, <https://doi.org/10.1016/j.molstruc.2021.130135>

Book Chapter

- **Brown, A.T.; Downer-Riley, N.K.** Copper catalysis for pyridines and pyrimidines In Copper in N-heterocyclic Chemistry; Srivastava, A., Ed; Elsevier: Amsterdam, 2021; pp 115. <https://doi.org/10.1016/B978-0-12-821263-9.00004-7>
- Edgar, K. J.; **Marks, J. A.** Green Hydrogels Based on Starch: Preparation Methods for Biomedical Applications. In Sustainability and Green Polymer Chemistry, Vol 1. Green Products and Processes; Cheng, H, N., Gross, R. A., Eds.; American Chemical Society: Washington, D. C., 2020; Vol. 1372, pp 173–196. <https://doi.org/10.1021/bk-2020-1372.ch010>.
- Arpita Mandal, **Debbie-Ann D.S. Gordon-Smith**, Peta-Gay Harris. Chapter 8 - Groundwater availability and security in the Kingston Basin, Jamaica. Editor(s): Abhijit Mukherjee, Bridget R. Scanlon, Alice Aureli, Simon Langan, Huaming Guo, Andrew A. McKenzie. Global Groundwater, Elsevier, 2021, Pages 97-112, ISBN 9780128181720, <https://doi.org/10.1016/B978-0-12-818172-0.00008-6>.
- Alison S. Gajadhar and **Ishenkumba A. Kahwa**. Chapter 6 – CARICOM. Editors:

Susan Schneegans, Jake Lewis, Tiffany Straza, In UNESCO Science Report 2021: the race against time for smarter development, UNESCO 2021, Pages 181-199. <https://www.unesco.org/reports/science/2021/en/caribbean-community>.

Conference proceedings

- Investigating the formation of steroid derivatives from testosterone using free and immobilized filamentous fungi. **J.M.G. McKenzie** and **P.B. Reese**, American Chemical Society National Meeting & Exposition" (virtually) in San Francisco, California, U.S.A. August 17 – 20, 2020.

ALIGNMENT

PAPERS PRESENTED

- E. Salgado, K.K. Ellins, R.C. Martindale, **D-A. Gordon-Smith**, D. Henry. "Established geoscience education strategies to support geoconservation initiatives in East Portland, Jamaica", 2020 American Geophysical Union Fall Meeting (online). December 1-17, 2020. <https://agu.confex.com/agu/fm20/meetingapp.cgi/Paper/760225>

PUBLIC SERVICE

Dr. Marvadeen Singh-Wilmot

- Appointed as Interim Head CASJ Chemistry Division
- Appointed as NAO representative on IUPAC Council
- Appointed to serve on Musgrave Awards Sub-Committee by the Natural History Museum of Jamaica, IOJ
- Appointed by TWAS for 3 years (2021-2023) to serve on the review committee for the TWAS-Atta-Ur-Rahman Award
- Invited by the Royal Society of Chemistry to participate in focus group to explore racial inequalities in the chemical sciences
- Mentored to the "Bustamante Box", a charity organisation operated by Campion Col-

lege Students to help other children in Jamaica

- Hosted Saturday chemistry classes to assist girls in the August Town and Papine Communities with preparation for CSEC chemistry. Also hosted a special student motivational event entitled 'Just Keep Swimming: The Motivation You Need to Keep Going'.
- Guest speaker at a Mental Health Session for FST students, entitled "One Minute of Motivation".
- Invited to serve on The World Academy of Sciences (TWAS) Working Group for Refugees and Displaced Scientists.
- Invited to participate in an online technical session as a moderator and presenter on Materials Engineering at the World Forum for Women in Science in Duhok, Iraq.
- Keynote Speaker at the Science for Humanity and Science Diplomacy World Forum for Women in Science, held at the University of Duhok, India.
- Attended the S4D4C Final Networking meeting on Science Diplomacy entitled "Addressing Global Challenges Together: The Role of Science Diplomacy."
- Performed duties as a STEM judge at the Rowntree Montessori Middle School Virtual STEM Fair, held in Brampton Canada.
- Petitioned CASJ to move a resolution to form a Chemistry Division (April 8, 2021). On April 12, 2021 the resolution was approved by the Board of CASJ and CASJ Chemistry Division was formed.
- Moderated the FST's Public Lecture Series, Science for Today Forum.

Dr. Andrea Goldson-Barnaby

- Member of the BSJ National Mirror Committee ISO/TC 93 for Starch

- Key organizer for the Chemistry Festival (ChemFest) and the Science Summer Series

Dr. Debbie-Ann Gordon-Smith

- Presented at The Faculty of Science and Technology, The UWI (Mona) Science for Today Forum Series: Fighting Covid-19: Science in Action
- Chair, Freshwater Ambient Standards Subcommittee, National Water Quality Technical Committee, Government of Jamaica (June 2021 – present)
- Member, Steering Committee, National Irrigation Commission/International Atomic Energy Agency Project titled: “Optimizing Irrigation Water Management to Improve Crop Output and Water Quality Control” (2015 – present)

Dr. Nickeisha Stephenson

- Elected Member-at-large on the Executive Committee of the ACS (American Chemical Society) Division of Fluorine Chemistry for 2021-2023

Dr. Donna Minott Kates

- Board Chairman, Grove Primary and Infant School

Dr. Norbert Campbell

- Acted in the capacity of President and chaired the Jamaica Occupational Health and Safety Professionals Association’s (JOHSPA) monthly Board of Directors Meeting in October.
- Attended the Jamaica Association of Public Health Inspectors Webinar Series.

Professor Emeritus Ishenkumba Kahwa

- Chairman of the Hazardous Substances Regulatory Authority (HSRA)
- Co-authored (along with alumnus Dr. Alison Gajadhar) Chapter 6 (with a focus on CARICOM) of UNESCO’s seventh edition of its Global Science Report released in June 2021. The Science Report monitors trends in science governance worldwide to identify which development path countries are following.

AGILITY

INCOME GENERATION

- Consultation fees, summer school and other departmental income: \$12,722,723.47.
- Postgraduate student, Ms. **Crystal Thompson** was awarded a grant of US\$2,180.00 from the Postgraduate Research Fund for a project entitled: "Mixed-Ligand Transition Metal Complexes Based on Functionalized Pyridyl Benzothiazoles for the Electrocatalytic Activation of Small Molecules".
- Dr. **Ian Thompson** received the partnerships for Innovative Research in Africa (PIRA) Grant, valued at US\$200,000 for a project entitled "Novel Composite Flours for Globally Nutritious Foods". The grant is included in the funding category of Global Diaspora Grant in the priority area of Health and Nutrition.
- Dr. **Debbie-Ann Gordon-Smith** received a grant of USD\$2,750.00 from The UWI's Research & Publications Fund to purchase equipment/supplies for a project entitled "Impact of Submarine Groundwater Discharge (SGD) on the Water Quality of Kingston Harbour, Jamaica".
- Postgraduate student, Ms. **Cachet Bowen** (OESH) received provisional approval, in the amount of US\$3,000.00, from the Research & Publication and Graduate Awards Fund, for her research project. This is pending departmental identification of the additional approximately, USD\$5,000.00 of her proposed budget.
- The Department benefitted from a grant from the American Chemical Society in the amount of US\$3,000. The grant was awarded to assist the Department with hosting two chemistry festivals over the upcoming academic year.