



## FACULTY OF SCIENCE AND TECHNOLOGY, UWI

### MONTHLY DEPARTMENTAL REPORT TO FST MANAGEMENT COMMITTEE

Department: CHEMISTRY

Report for the Month of: OCTOBER, 2024

#### ITEMS

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##### 1. Publications

- **Journal Articles**

Andre McGlashan, **Peter N. Nelson**, Syam Prasad P, Iezid Mostepha, Goumeidane Faycal, Phaniprasanthi Parvathaneni and Venkateswara Rao Penugonda, Introducing Nickel Ions into a Bismuth Boro Tellurite Glass System and Its Effect on Physical and Material Properties, *ECS J.Solid State. Sci.* **2024**, <https://doi.org/10.1149/2162-8777/ad8d7a>.

**Shannen C. Lorraine**,\* Kerry-Ann Green, Kamaluddin Abdur-Rashid, Alan J. Lough, and **Paul T. Maragh**\*. Synthesis and Characterization of Air-Stable Palladium(II) and Copper(I) Ph-Garphos Complexes and their Applications to Asymmetric Catalysis. *ChemistrySelect* **2024**, 9, e202400625, <https://doi.org/10.1002/slct.202400625>

##### **Oral Presentations**

**Dr. Debbie-Ann Gordon-Smith, Dr. Nickeisha Stephenson and Dr. Mark Lawrence** Presented at the Scientific Research Council's Science and Technology Conference held at the Jamaica Conference Centre from October 29 – November 1, 2024 under the theme: Harmony in Innovation: Unleashing the Power of Nuclear Application for Sustainable Development.

**Dr. Debbie-Ann Gordon-Smith.** Use of Radon as a Tracer of Submarine Groundwater Discharge in Coastal Regions of Jamaica.

**Dr. Nickeisha Stephenson.** Synthesis of Positron Emission Tomography Radiopharmaceuticals via Iodonium Ylide-Mediated Radio fluorination and introduction of PET/CT Imaging to Jamaica.

**Dr. Mark Lawrence.** Young Scientist: Hydrogen, A Simple Molecule with a Complex Problem.

## 2. Workshops/Conferences/Seminars/Symposia

<u>DATE</u>	<u>NAME, TITLE, AFFILIATION</u>	<u>TITLE OF SEMINAR</u>
October 3, 2024	Prof. Michele Zema, University of Bari, Italy	"Crystallography as a Vehicle for Stimulating Research and Education in the Developing World".
October 10, 2024	Mr. Kurt McBayne, Graduate student, Department of Chemistry, UWI	"Let's go on a trip: Validation of In-Silico Models Psilocybin Biosynthetic Enzymes using Inhibitors".
October 17, 2024	Dr. Omar E. Christian, Associate Professor, North Carolina Central University	"Antigonococcal metabolism from Jamaican Propolis".
October 24, 2024	Mr. Haile Dennis, Reactor Engineer, Assistant Research Scientist ICENS	"Can Jamaica seriously consider nuclear power?"
October 31, 2024	Mr. Morris Hutchinson, Founder & Director of Alternative Energy Plus and The Solar Place	"The Advantage of Solar Power Systems".

## 3. Student Awards (Locally and Internationally)

Congratulations to Dr **Deneikah Jackson-Wray** and Dr **Tahjna Robertson** (both supervised by Dr **Peter Nelson**) and Dr **Allan Sappleton** (supervised by Prof Taveira & Co-Supervised by Dr Henroy Scarlett and Prof Emeritus Ishenkumba Kahwa) on the award of their PhD Chemistry & OESH degrees, respectively.

## 4. Outreach/In-reach Activities

Dr **Andrea Goldson-Barnaby**, Dr **Ainka Brown**, and members of the American Chemical Society (ACS) **Jamaica Student Chapter** participated in activities to mark ACS National Chemistry Week.

These included:

- being guest facilitators at a meeting of the STEM Club at Lister Mair Gilby School for the Deaf on Tuesday October 22, 2024. The sixteen club members and several of the teaching staff were guided through Chemistry experiments to visualise fingerprints and to transform aluminium foil to copper.
- Participating in the online ACS Program-In-A-Box Watch Party and Chem-Clash competition on Wednesday October 23, 2024
- National Chemistry Week Photo Challenge

The UWI Mona Food Chemistry Division hosted an interactive session highlighting opportunities in Food Chemistry and Food Processing on Thursday October 24, 2024. The session was led by Dr **Ian Thompson** and Dr **Patrice Peart**. Dr **Andrea Goldson-Barnaby**, Dr **Ainka Brown** and members of the American Chemical Society (ACS) **Jamaica Student Chapter** assisted with logistics and

demonstrations. Preliminary, Introductory, and second year students came out in their numbers to engage with industry personnel, win giveaways, and to hear about undergraduate and graduate programmes offered by The UWI. They also got the chance to learn how to make cheese from Mrs Sonal Gupte (Dairy Industries Limited) and liquid nitrogen ice-cream from Mr **Marcel Denny** (UWI Chemistry).

## 5. **Professional Activities (Appointment to Boards, Civic Duties etc.)**

**Dr. Joyann Marks** was appointed Managing Editor of *Carbohydrate Polymers* (Elsevier Publishing) on October 1, 2024.

**Dr. Joyann Marks** participated in a Refresher Training on Regulatory Impact Assessment (RIA) and Technical Regulations (TRs) through the Bureau of Standards, Jamaica on October 9, 2024.

**Dr. Marvadeen Singh-Wilmot** has been selected as a "Member of the International Science Council's Global Roster of Experts." In the welcome letter the ISC states this is due to her "dedication to advancing the role of science in shaping international policy."

**Dr. Singh-Wilmot** participated in the AAAS Caribbean Conference and L'Oreal UNESCO Young Talents Caribbean Awards October 25 and 26, 2024. She delivered a message on behalf of the Caribbean Academy of Sciences at the Awards Ceremony and also represented the panel of judges on which she serves.

## 6. **Partnerships**

**Dr Singh-Wilmot** gave a talk entitled "CrXstal: Caribbean Regional X-ray Science Toward Advancement Laboratory" at the AfLS - GCLS/LAMISTAD - SMLS Sessions for UNGA Science Summit which was held online on September 26, 2024.

## 7. **Visitors**

**Dr. Marvadeen Singh-Wilmot** hosted Prof. Michele Zema from the International Union of Crystallography (IUCr) and Light Sources for Africa, the Americas, Asia and the Pacific (LAAAMP) for 1 week at crXstal, the new X-ray lab which was inaugurated on October 3, 2024. Prof Zema delivered a special seminar in the Thursday Seminar Series and delivered a special lecture to the CHEM3312 (Chemistry of Materials) class.

## 8. **Other**

The **Food Industry Advisory Board** meeting was held October 31<sup>st</sup> hosted by **Dr. Ian Thompson** with attendees from the various sectors in the Food Industry who participated in discussions on how to improve the FAPT graduate program to ensure its viability and responsiveness to the needs of the Industry.