



CURTIS GREEN: JAMAICA

Studying the use of Stable Isotopes for Human Studies.



Dr. Curtis O. Green, a visiting scientist from the Department of Tropical Medicine Research Institute (TMRI), University of the West Indies, Jamaica, is currently on a 3-month, IAEA-sponsored training fellowship in Dr. Dale Schoeller's laboratory, Department of Nutritional Sciences, University of Wisconsin, Madison.

Dr. Green graduated from the University of the West Jamaica in 2009 where he investigated the biochemistry of polymethoxylated flavones and their metabolic effects in an animal model of hypercholesterolaemia. After completing his degree, he enthusiastically joined the team of Prof. Marvin Reid and Dr. Asha Badaloo at TMRI where Dr. Green is supervised by Director Prof. Terrence Forrester. There he immersed himself in clinical research and the use of stable isotopes to assess protein and amino acid metabolism in childhood malnutrition. His work centered on measuring whole body protein breakdown and synthesis rates, total and endogenous production of specific aromatic amino acids in Children in order to improve the child's treatment and recovery.

This IAEA fellowship offers an exceptional opportunity for Dr. Green to expand his expertise in the use of stable isotopes for human studies. He selected Dr. Schoeller's laboratory because of its long history in research on energy metabolism and human obesity, body composition, using stable isotope techniques for studying macronutrient metabolism. Since coming to Wisconsin, Dr. Green has gained experience in the use of the doubly labelled water (DLW) for the measurement of body composition and energy expenditure. He is learning the theory of the method, the manner in which the isotope analyses are performed using isotope ratio mass spectroscopy, the quality control procedures and the calculations to transform the isotope measurements into a measure of energy expenditure.

Dr. Green will carry this training back to Jamaica in July. He will expand his research and be responsible for conducting studies using the DLW method as part of his current efforts and joining forces with those of the Ministry of Health in the study of human energy balance under conditions of not only malnutrition, but also overnutrition, which is becoming a health issue in Jamaica. This training therefore will expand not only Dr. Green's research capacity, but also those of TMRI and those of the Health Ministry.

This visit to Wisconsin is Dr. Green's most extended stay outside of Jamaica. He has taken this opportunity to experience a different culture when outside of the laboratory. He visited the historic Wisconsin State Capitol building which is the second tallest capitol except for the US Capitol. He also walked through Madison's excellent, but expensive farmer's market. As a nutritionist, he was surprised that the variety of fruits and vegetable available in Madison markets was often greater than that available in the tropical climate of Jamaica. He also travelled to Chicago to view the outstanding variety of architectural styles and dined in Chinatown.

Trained 4/1/2010—6/30/2010