June 2011 Edition

The Department Today

Welcome to this inaugural issue of the Department of Biological Sciences bi-annual online newsletter. I would like to reacquaint you with our department,



Gary R. Walker, Ph.D.

whether you are a current student, an alumnus or friend of the Department. The university is a place where the world of ideas is fostered and built upon, day-by-day. The essential goals of any university, then, are to disseminate knowledge, primarily through

teaching, and discover new knowledge through scholarship and research. Our department strives to achieve both of these goals with quality of effort and commitment to the future. We are continuing to build the research programs we house within the department and of course always strive for a better learning experience. We plan on publishing this every six months and we encourage your input and submissions of articles for future newsletters.

Chairperson
Department of Biological Sciences
Gary R. Walker, Ph.D.



Professor Carl Johnston in Peru



Biology Associate Professor Carl Johnston was in Peru from February to May 2011 as part of his faculty improvement leave to initiate an agreement of academic and cultural cooperation between Youngstown State University and La Universidad Nacional Agraria La Molina de Lima (UNALM), Perú. Goals of the agreement are to strengthen cultural and educational ties and to provide opportunities to broaden the experiences of the participating students and faculty from both institutions. Carl Johnston was accompanied by his wife Patricia

Johnston, a Peruvian national and fellow scientist, who facilitated communication in Spanish. During his time in Peru, Johnston was welcomed by the Rector of UNALM as well as by faculty and students. Johnston initiated undergraduate and graduate research with Professor Juscamaita, a UNALM biology faculty with expertise in agricultural biotechnology and bioremediation. The Johnstons also collected plant specimens from mangroves in Northern Peru and from the high Andes (4800 m altitude) which will be part of the YSU Herbarium.



Youngstown STATE UNIVERSITY

YSU's Department of Biological Sciences Collaborate with Commercial Interests.

(re-published from STEM Newsletter Article)

Development of the Center for Applied Chemical Biology and the YSU Research Foundation have made it possible to develop ongoing collaborations and to engage with new businesses and commercial ventures. The Department of Biological Sciences have several specific collaborations with local business currently that provide research opportunities for both undergraduate and graduate students.

Dr. Jonathon Caguiat and several of his students are working with NewTec, Inc. (Salem, OH) testing their SanitiZer a bactericidal device for supermarkets. The NewTec President, Craig Gainor, approached YSU for it's microbiological expertise. Four undergraduate students, Ben Belcik, Katie Olenick, Elizabeth Shoff and Emma Lang, and two graduate students, Valentine Ngendahimana and Swarna Moparthi, are conducting the testing to determine the ability of this technology to reduce the number of Gram positive and Gram-negative bacteria on grocery carts.

Dr. Gary R. Walker is engaged in ongoing research collaboration with a local company, CelVida, LLC. The company recently returned to the Youngstown area after being located in South Florida for many years. The company is interested in developing novel biomedical applications for human stem cells, and in doing so contribute to the rebuilding of the Youngstown area. Stephanie McCann, a graduate student is assisting



in the project as a cell culture technician. The YSU group studies the characteristics of these stem cells in culture.

Dr. David Asch works with a local brewery, The Rust Belt Brewery, owned by Ken Blair, looking for ways to improve their operations. The YSU group, composed of Brandon Dessecker and Mariah Pagath, is conducting growth studies on samples collected from the company's fermentors in an effort to understand the production process leading to an enhanced product. In addition the YSU group, including Anthony Casacchia, is conducting a microbiological survey of the brewery.

Other projects that are ongoing in the department include Dr. Chet Cooper's initiation of collaborative effort with a company in Oklahoma, specializing in anti-fungal technologies. Chet adds his extensive experience in mycology in a discovery-based approach to fungal management. Dr. Fagan is collaborating with STROX Biopharmaceuticals, L.L.C. (Wellington, FL) to investigate immunotherapies for *S. aureus* infections.

These are the most recent activities in scholarly outreach that the department has been engaged in. These activities bring faculty expertise, students and local/regional commercial interests together in making the Valley a better place to live and work.

YSU Biology Club 2010 - 2011

The Youngstown State University Biology Club is an on-campus organization that unites undergraduate and graduate students with a common interest in biological science and supporting and enhancing the community through volunteer activities. Officers of the 2010 – 2011 academic year include Stephanie McCann (President), Sanaz Jalali (Vice President), Angela Sherokee (Secretary), Heather Williams (Treasurer), and Brandon Grant (Group Liason). There were approximately 40 active members.

Members participated in community service activities such as serving Thanksgiving dinner at the First Presbyterian Church of Youngstown and donating nearly 100 hours of volunteer time at the Second Harvest Food Bank. Members also participated in academic activities such as Geek Fest, Women in Science, Biology Day, and Coffee with the Professors. In addition, Bowl-A-Strike Against Cancer, a fundraiser benefiting the American Cancer Society, was a great success and collected about \$1,700.

Newly elected officers that will serve The Youngstown State University Biology Club during the 2011 – 2012 academic year include Sarah Waldinger (President), Ashley Emmerson (Vice President), Kim Bertmeyer (Secretary), Amanda Sacco (Treasurer), and Amber Bullock (Group Liason).



If interested in purchasing a Biology Club hoodie or T-shirt conact the Biological Sciences Office for information.

Prepared by Stephanie McCann YSU-BC President 10-11

