Department of Biomedical Sciences Newsletter Fall Update 2 October 2015



Meet the Faculty Night

Current and prospective **Biomedical Sciences** students mark your calendars for the 'Meet the BMS Faculty Night' on October 22nd at 5:30-7:30pm in the Mary Idema Pew Library - Multipurpose Room 030. At the 'Meet the Faculty Night' students will have the opportunity to chat with BMS faculty and investigate the opportunities available in our research labs. Refreshments will be provided at the event, so at the very least join us for a bite to eat.

Active participation in original research is an enriching component to any undergraduate's career. The opportunities for BMS majors to gain research experience in faculty laboratories are many and varied. To learn more before the 'Meet the Faculty Night' please peruse the descriptions of research in our department by discipline and by professor.

Follow Biomedical Sciences on Social Media



The **Biomedical Sciences Department** recently added Twitter to our repertoire of communications with our students to complement our Facebook and LinkedIn pages. Please follow us on Twitter @BiomedSciGVSU and/or join our Facebook page to keep up with some of the latest happenings within Biomedical Sciences.

Duke Tanaka Jr Anatomy Scholarship Awarded

This year's winner of the <u>Duke Tanaka Jr Anatomy</u>
Scholarship in Biomedical Sciences is Marissa
Pulsipher. This scholarship was established by <u>Dr. Tim</u>
Stickler, professor of Biomedical Sciences, in the hope that students will share in the passion of anatomy and biomedical sciences as Duke Tanaka Jr did when at GVSU. The scholarship benefits outstanding students who have taken comparative or human anatomy.



Sabbatical Update from the University of Iowa

<u>Dr. Martin Burg</u>, professor of **Biomedical Sciences**, is currently on sabbatical for the fall semester and spending his time at the University of Iowa, in the highly esteemed lab of Dr. Chun-Fang Wu. The long-term research goals in the Wu lab concern the genetic framework underlying nervous system function and behavior in the context of nature-nurture interactions. The research involves analyses at different levels in *Drosophila* with a combination of electrophysiological, anatomical, cell biological, genetic and behavioral techniques.

Or. Burg's sabbatical is largely researching the "Investigation of histamine as a neurotransmitter using behavioral, molecular, pharmacologic and genetic analysis". The acquisition of training in neuroethology/behavior from one of the foremost experts in the field of *Drosophila* research at the University of Iowa will undoubtedly be an exceptionally valuable tool for his lab and his students. He is currently conducting physiological and behavioral research in the Wu lab by investigating Hdc (Histidine decarboxylase) genetic mutant flies. In fact, he is attempting to induce flight in a fruitfly while simultaneously recording the activity of the nervous system, no easy task indeed (picture).



Biomedical Sciences Researchers Help Food Pantries Establish Healthy Policies

Data collected by Grand Valley researchers has helped two Grand Rapids food pantries establish policies and ensure fresh produce and healthy foods are available to their clients.

Dr. Deborah Lown, associate professor of Biomedical Sciences, and her graduate student Katherine Hekstra created a survey and collected data from people who visit food pantries at South End Community Outreach Ministries (SECOM) and Streams of Hope neighbors.

SECOM, in southwest Grand Rapids, provides more than 20,000 services to more than 9,000 people annually. Streams of Hope, in southeast Grand Rapids, services 6,000 people annually through its food center. Eleanor Moreno, SECOM director of client services, said affordable options for healthy foods within walking distance of the neighborhood are limited. "These are families committed to healthy eating but who are having a hard time finding affordable healthy foods," Moreno said. "Through this initiative, we want to make sure that these families can access the nutritious foods they need to improve health and have the energy to work and learn."

Hekstra, who will graduate in December with a master's of health science in biomedical sciences degree, said the data revealed more than 40 percent of SECOM clients were diagnosed with high blood pressure and 46 percent as overweight. She added that 70 percent of clients stated they would like more fresh fruit and vegetables in the pantries. Hekstra said the data will help staff members at the food pantries evaluate the change in food distribution and better understand their clients. Data will be collected again at the three- and six-month stages. "We also created a guide for the volunteers at the pantries who shop with the clients," Hekstra said. "It resembles My Plate, a visual image of what a balanced diet is."

Staff at both food pantries received help from Access of West Michigan to establish and transition to healthy food policies. Emma Garcia, hunger response director at Access of West

Michigan, said the research by Lown (left in picture) and Hekstra (right in picture) will help improve the health of neighborhoods through nutritional options. "We know from national data that low-income populations have much higher incidence rates of diseases related to food," Garcia said. "Having our own data in food pantries that serve Kent County will help us make positive and deeply impactful nutritional changes in how we serve our community." Original Article



CLAS Distinguished Alumna-in-Residence: "Treating the Whole Person:

Osteopathic Medicine and the Liberal Arts"

Date: Thursday, October 22, 2015 4:00 PM - 5:30 PM

Location: Kirkhof Center » RM 2270



The <u>CLAS Distinguished Alumni-in-Residence Program</u>

provides a venue for departments to invite outstanding alumni of their undergraduate programs back to campus to share their post-graduation experiences with the GVSU community. Through the program, our distinguished alumni have the opportunity to share their insights about what constitutes strong academic preparation for students. This year **Biomedical Sciences** was not among the departments eligible to nominate a Distinguished Alumni, however the **Classics Department** did nominate a dual Classics and **BMS** major for this year's program.

A 2009 GVSU Honors graduate from Brighton, Michigan, Dr. Michelle **LeMieux** received the B.S. in **Biomedical Sciences** with a double major in Classics, concentrating on the Classical Tradition—a background that she put to good use while studying at John Cabot University in Rome and completing her Honors Senior Project on Virgil's Aeneid.



Michelle matriculated at Michigan State University's College of Osteopathic Medicine and earned the Doctor of Osteopathic Medicine degree in 2013. She is now Chief Resident in the Integrated Family Practice and Neuromusculoskeletal Residency Program at the Botsford Hospital campus of Beaumont Health in Farmington Hills, Michigan. She will graduate in 2017.

Michelle is actively participating in two research projects. The first is investigating an association between cardiac stress test results and Chapman's reflex points—a system of fascial tissue texture abnormalities hypothesized to be reflections of internal dysfunctions or pathologies. The other is seeking to demonstrate a new theory for the mechanism behind a specific osteopathic diagnosis, called an upslipped innominate. Michelle is also working on quality improvement initiatives in her family practice office.

Navigating the demanding curricula in **Biomedical Sciences**, Classics, and Honors while studying abroad (and graduating in four years!) was a challenge that reflects Michelle's commitment to developing herself as a whole, well-rounded person. Similarly, her work in osteopathic medicine approaches medicine in a holistic way, focusing on the whole body and working in partnership with her patients. Original Article.

Former and Current Student News

- Mark Benedict, B.S 2009 and former BMS advisee of Dr. Martin Burg is a resident physician at Yale University School of Medicine.
- Alexander LeBon, B.S. 2010 and former BMS advisee of Dr. Suganthi Sridhar is a practicing chiropractic physician with Balance Chiropractic in Grandville, MI.
- Samuel Perry, B.S. 2013 and former BMS advisee of Dr. Merritt Taylor is a long way from his hometown of Ida, Michigan. The 25 year old graduated from Grand Valley State University in Grand Rapids, Michigan, with a degree in biomedical sciences, and is now in his third year of medical school at Edward Via College of Osteopathic Medicine. The school has a partnership with Clarendon Memorial Hospital, which has taken about 12 students annually for the last three years to train in rotations with the hospital's physicians and staff. Perry is one of eight students "matriculating" at the hospital



this year. "I hope to get a good experience in my first clinical rotation here," Perry said. "I

think it will just be good hands-on experience. We've been in the classroom for most of the last two years, and now we will be able to apply that knowledge in the real world." ... Perry said he hasn't made up his mind on which medical field he'd like to practice in, but he's leaning toward emergency medicine. "I was raised in a family with a doctor who worked in emergency medicine, my stepdad," he said. "So it's in the family." Perry said he wants to be a "positive impact on this and my home community." "My ultimate goal is, really, just to have a good stable job for my family," Perry said. Perry didn't make the trip to Sumter alone: He moved here with his fiancee, Alisha Marz. "It's our first time living together, but it's going smoothly so far," he said. "She's currently working at finishing school and looking for a job. We're looking forward to our time in the area." Original Article

Upcoming Events

- 10/22 CLAS Distinguished Alumna-in-Residence: "Treating the Whole Person: Osteopathic Medicine and the Liberal Arts" by Dr. Michelle LeMieux at 4pm in KC 2270
- 10/22 Meet the BMS Faculty Night in the Pew Library at 5:30-7:30pm in Room 030
- 10/23 **BMS Seminar Series** at 12pm in LSH 154; "Alternative pathological mechanisms associated with Alzheimer's disease", Dr. Irving Vega, Michigan State University.
- 10/24 Fall Breather and CLAS Mindgating at Homecoming
- 10/26 **Science on Tap** at 8pm in the SpeakEZ Lounge; "The Right Climate for the Saner Diet". Paul Shapiro, vice president of farm animal protection for the Humane Society.
- 11/4 Academic Majors Fair from 11:00am -2:00pm in 2250 KC
- 11/6 **BMS Seminar Series** at 12pm in LSH 154; Topic: Nuclear receptors and cancer.

 Dr. Manohar Ratnam, Wayne State University School of Medicine & Karmanos Cancer Institute
- 11/12 **Science on Tap** at 8pm in the SpeakEZ Lounge; "HIV and Tuberculosis: Why the Synergy?" Dr. Julie Turner, Van Andel Research Institute
- 11/18 **BMS Seminar Series** at 12:00pm in MAN 122; Topic: Music therapy neuroscience and rehabilitation, Dr. Ed Roth, Western Michigan
- 12/4 **BMS Seminar Series** at 12pm in LSH 154; "Real Life Inceptions: using optogenetics to interfere with memories during sleep", Kevin Swift, University of Michigan.

Interesting and Significant Items to Share

Don't be a stranger! The <u>BMS Department</u> would love to hear what you have been doing since leaving **Grand Valley** (i.e. internships, professional school matriculation, employment, etc...). Please send us your news, announcements, and photos to <u>biomeddept@gvsu.edu</u> or share on social media at our <u>Facebook</u>, <u>Twitter</u> or <u>LinkedIn</u> pages. You can also send <u>Dr. Dan Bergman</u>, Chair and Associate Professor, a message at <u>bergmand@gvsu.edu</u>.