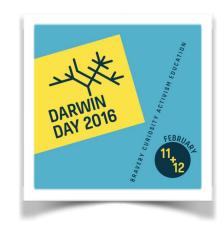
Department of Biomedical Sciences Newsletter Fall Update 4 December 2015



Grand Valley to Celebrate its First Darwin Day

Grand Valley will celebrate its first *Darwin Day February* 11-12 with two days of events, including a keynote presentation, art exhibit, fun events, and faculty and student presentations. Students and faculty members from all disciplines are invited to submit abstracts for presentations or for the art exhibit. The deadline to submit an abstract is January 15; details are online at www.gvsu.edu/darwinday.



The events were created to celebrate Charles Darwin's birthday, to encourage intellectual bravery and education, and to introduce the various aspects and applications

worldwide. The day looks to represent international cooperation toward the advancement of science and education.

<u>Cara Ocobock</u>, assistant professor of **Biomedical Sciences**, broached the idea to host a campus-wide event celebrating Charles Darwin and the theory of evolution last spring. "I'm an anthropologist so evolution is constantly in my studies, "**Ocobock** said. "Internationally, Darwin Day events have been held for years, and I thought, 'Why not here, too?" From the start, *Grand Valley's Darwin Day* was intentionally interdisciplinary in nature. **Ocobock** said Darwin's theory of evolution touches everyday life in many ways, through language, art and health, for example. **Ocobock** cited annual flu vaccines and said the reason people need a new vaccine each year is because the flu strains change and evolve.

Dr. Ocobock said that along with the main events there will also be an "Endless Forms Most Beautiful" art exhibit running from Feb. 9 to Feb. 25. Art submissions for this exhibit are currently open. Many departments are involved with the event, including **biomedical sciences**, biology, anthropology, psychology, geology, classics, art, movement science, the library, and multiple student groups. "I feel that it is important to start building bridges across disciplines because we learn more together than we do apart," **Ocobock** said. "Evolution is at work in our daily lives, and it is important for everyone to realize the impact it has had for the past two centuries."

The keynote speaker is Wenda Trevathan, professor emerita of anthropology at New Mexico State University. She is a co-editor of two collections of works on evolutionary medicine and wrote Ancient Bodies, Modern Lives: How Evolution Has Shaped Women's Health.

Sponsors of Darwin Day are many student organizations and campus departments, including **Biomedical Sciences**, Movement Science, Psychology, Geology, Physics, Art and Design, and University Libraries, among others.

On Feb. 11, multiple events are scheduled, including an all-day reading of Darwin's *Origin of Species* at the library. There will also be a free evolution improvisation comedy event put on by Rapid Delivery Improv, followed by a free showing of *Jurassic Park*. This night will conclude with a panel discussion about the evolutionary themes and facts and fiction of the movie.

On Feb. 12, Charles Darwin's birthday, the day will begin with a lab walkthrough in the Henry/Padnos Atrium on the Allendale Campus. At this time, certain GVSU departments will have tables set up to demonstrate how the theory of evolution plays a role in their discipline. Throughout the day there will also be a scavenger hunt occurring in the library for students to participate in.

Lastly, the celebration will end with a Science on Tap event at the SpeakEZ Lounge with a conversation about the strange existence evolution caused.

The Darwin Day celebration has been, and will continue to be, a collaborative effort within the university. Lanthorn article on topic by Taylor Fussman.

Conference Presentation on Retinal Ganglion Cells in Denver, Colorado

<u>Dave Linn</u>, associate professor of **biomedical sciences**, gave a recent presentation entitled "Retinal ganglion cell survival with a nicotinic agonist and modulator" at the Association for Research in Vision and Ophthalmology meeting in Denver, Colorado.

Dr. Linn's main area of research at GVSU has been the visual system. His lab has been exploring the mechanisms of action of excitatory neurotransmitters including glutamate and acetylcholine (ACh) in the mammalian retina. Over the years, and particularly during his time at Pharmacia & Upjohn / Pfizer, his research has shifted towards the function of ACh once released in the retina. Some of his work



supports the concept that ACh activates receptors (i.e. alpha7 nicotinic) on retinal ganglion cells, and these receptors could be involved in activating survival mechanisms during pathological states (e.g. glaucoma). The retinal ganglion cells are the targets of neurodegeneration during glaucoma, and his work is directed at potential therapies that might provide neuroprotection during glaucoma.

University Service Awards

Three professors from **Biomedical Sciences** were recently recognized at the December University Service Awards Ceremony:

45-year award recipient: Sheldon Kopperl 35-year award recipient: Timothy Strickler 20-year award recipient: John Capodilupo







If you see any of these three faculty members around campus, please thank

them for their years of dedication to the students at Grand Valley and to our department.

Pedometer Challenge - Keeping Fit

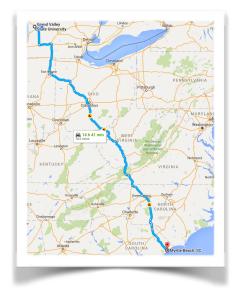
This year's <u>GVSU Pedometer Challenge</u> teams participated in the "Competitive Challenge" and the "Team Goal Challenge" with ways to win prizes for both options. We are now proud to announce the 2015 winners are primarily from the **Biomedical Sciences Department**.

First Place Team: "Somewhat Faculty Laden": 6,653,675 Steps,3,326 Miles (L-R) assistant professor <u>Derek</u>

<u>Thomas</u>, lead lab supervisor <u>Josh</u>

<u>Stickney</u>, professor <u>Martin Burg</u>, of <u>Biomedical Sciences</u>, and Deb Rambadt of Campus Dining.





And the individual with the most steps in the competition was Professor Martin Burg, with an impressive 1,850,243 steps completed while on his "walk-about" sabbatical. His step total equate to around 925 miles traversed! Which means that if Professor Burg started walking from GVSU on he "walk-about", he would end up somewhere on a beautiful beach at Myrtle Beach, SC. As was observed by Nietzsche, "All truly great thoughts are conceived while walking," so expectations are extremely high for Dr. Burg's sabbatical report and the subsequent Sabbatical Showcase in April 2016.

BMS Spotlight - Dr. Merritt Taylor

Merritt Taylor, associate professor of Biomedical Sciences and interim assistant Dean of the College of Liberal Arts and Sciences. Video of Dr. Taylor.

Educational Background:

Post-doctorate in Stem Cell Biology, University of Michigan Ph.D. in Neuroscience, University of Michigan B.A. in English and B.S. in Neuroscience, University of Rochester

What do you like most about teaching at Grand Valley?

The students. They are well prepared, they work hard, and it's a great opportunity and privilege as a professor to be able to show them opportunities that they may not have seen before.



What is your favorite class to teach?

All of them. I like the entry-level classes that we have for physiology. Then as we progress in the program, they have more specialized types of courses they can take that I teach such as neuroscience.

What is the most rewarding aspect about teaching at Grand Valley?

Not only being able to see the light bulb go off when you're interacting with them in the classroom, but also being able to see how they grow and they progress as they go through the curriculum.

How do you contribute to the success of your students?

It's good to be able to provide structure and be able to support students with online resources so that when they're in the classroom, we can target the hardest materials that we possibly can.

What advice would you give to prospective students?

If you're open and you're able to pursue the things that you're interested in, then success will follow, whether it's in the curriculum or outside of the classroom.

What do students like best about your class?

They like the discussion-based format, and I think they like that we are able to take the material and make it come alive.

Mock Multi Mini Interview Workshops

During the fall semester, the <u>CLAS Advising Center</u> now runs a mock multi-mini-interview preparation session for current students, who are preparing for medical school interviews. This year multiple BMS faculty served in the role of interviewers for our students, which included <u>Deb Burg</u>, <u>Michelle Dawes</u>, <u>Sue Leonard</u>, <u>Tony Nieuwkoop</u>, <u>Cara Ocobock</u>, <u>Suganthi Sridhar</u>, <u>Frank Sylvester</u>, <u>Lissa Tallman</u> and <u>Cyndie Thompson</u>.

Science on Tap

The human invasion of Mars has begun. A fleet of robots, first, to surveil the planet from orbit, then landers to take more pictures and chemically analyze the soil and atmosphere, then roving robots with laser eyes to study every detail. If you could, would you go on a one-way trip to Mars? Do you know someone you might like to send instead? What's the weather like on Mars and how should you pack? And, is there beer on Mars? Come to this Science on Tap on January 14th with Dr. Doug Furton for "What we have learned from Martian robots."



Science on Tap is co-sponsored by the **Biomedical Sciences**

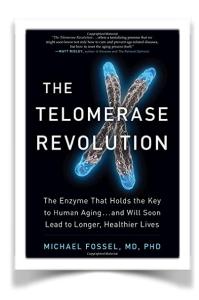
Department and the SpeakEZ Lounge. These events are an opportunity for conversation, debate and interaction between scientists and the public. Each month at SpeakEZ, a knowledgeable expert hosts a scientific discussion about current topics in the news such as ebola, the paleo diet, and cutting edge cancer research. This is a great chance to exercise your academic interests in a casual setting while enjoying great food and drinks.

Facebook page: https://www.facebook.com/scienceontapgrandrapids/?fref=ts

The Best New Books for Science Lovers from Matt Ridley

Matt Ridley, the British journalist who has written several popular science books has recommended his top 5 new books from 2015 in the Wall Street Journal, and among his recommendations is **Dr. Michael Fossel**'s book *The Telomerase Revolution*.

Dr. Michael Fossel earned both his Ph.D. and M.D. from Stanford University, where he taught neurobiology and research methods. Winner of a National Science Foundation fellowship, he was a clinical professor of medicine for almost three decades, the executive director of the American Aging Association, and the founding editor of *Rejuvenation Research*. In 1996, he wrote the first book on the telomerase theory of aging, *Reversing Human Aging*, describing the medical aspects of extending human telomeres, reversing aging, and curing age-related disease. In 2004, he authored the magisterial academic textbook, *Cells, Aging, and Human Disease*, and in 2011, he coauthored *The Immortality Edge*, a bestselling discussion of the potential for extending the human lifespan. He currently teaches **BMS 375** the **Biology of Aging** for the **Biomedical Sciences Department**.



Matt Ridley states, "For a more optimistic glimpse of the future, try Michael Fossel's fascinating account of how we might halt and reverse the process of aging: **The Telomerase Revolution**. Dr. Fossel argues that the mechanism behind all chronic diseases of old age, even Alzheimer's, lies in the shortening of chromosomal repeats called telomeres. Given that all cells are equipped with a gene capable of preventing that shortening, and some use it, why not try switching that gene on inside people's bodies to halt aging? It may not be easy, but it's unlikely to be impossible. Aging might be cured one day."

Former and Current Student News

- Alyssa Kulesza, current advisee of <u>Dr. Shel Kopperl</u>, has been admitted to the Michigan State University College of Human for this next fall.
- Jamie Murawski, current advisee of <u>Dr. Shel Kopperl</u>, has been admitted to GVSU's Physician Assistant Program.
- Ellen Tumbarella, current advisee of Dr. Dave Kurjiaka, hopes to provide medical care in Panama. Ellen has known since she was a little girl that she would be a doctor when she grew up. Now she has an opportunity to fulfill that dream. Tumbarella, who is a third-year BMS/pre-medicine student at Grand Valley State University, hopes to participate in a trip to Panama, where she will work with a delegation sponsored by International Service Learning (ISL) to provide medical care to children. "I've been dreaming about becoming a doctor ever since I was a little girl, and over the years I have developed a desire to serve abroad," she said. "My parents said I've been talking about it since I was 3. I remember having a doctor kit, and I never changed my mind. Science has always fascinated me and the human body always fascinates me..." At Grand Valley, she is studying Biomedical Sciences and chemistry with a pre-med emphasis. She hopes to one day become a pediatric surgeon. Her interest in pediatrics came after volunteering at the Helen DeVos Children's Hospital in Grand Rapids in the last year... Original Article.
- **Stephany Zahl**, current advisee of **Dr. Shel Kopperl**, has been admitted to the Michigan State University College of Human for this next fall.

Upcoming Events

- 12/23 Biomedical Sciences office closed
- 1/4 Biomedical Sciences office reopens
- 1/11 Classes Begin for the Winter semester
- 1/14 Science on Tap Dr. Doug Furton "What we have learned from Martian robots."
- 1/15 Faculty Activity Reports (FARs) due to Unit Head
- 1/18 Martin Luther King Jr Day; No Classes
- 1/22 **BMS Seminar** "Mechanisms and Models of Dominant Parkinson's Disease", Darren Moore, Van Andel Research Institute

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 <u>Grand Valley</u> (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, 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>