Greetings again from the Division of Natural & Health Sciences! We have lots of news to share with you in this issue!!

The feasibility study for the proposed nursing program at JBU was submitted to the state nursing board in early July, and in mid-July they made a site visit to the JBU campus. We meet with them in Little Rock on September 11th and will find out on that day whether our program has received prerequisite approval, which would allow us to begin advertising the program. Please join us in praying for God’s will to be done in this matter.

Twenty-six students from the Division were accepted to graduate or professional school for the coming year—a record for our Division! Topping the list of acceptances were seven students each who were accepted to medical school or physical therapy school. We also had a record year of new students admitted to the Pre-Health Professions Program with 29 students in a single year!

You should have received at least one invitation in the mail to the first ever Homecoming Reunion Brunch we are sponsoring for all alumni (and their spouses) of the Division of Natural Science and the Division of Health & Sport, now merged to form the Division of Natural & Health Sciences. Several current and former faculty (and spouses) will be attending. We look forward to seeing you at this event, scheduled for October 5th at 9-11 am in Bell Science Hall. To help us plan appropriately, please register in advance at www.jbu.edu/homecoming.

Dr. Funk Receives $250K INBRE Grant

Dr. Joel Funk, Assistant Professor of Biology, has been awarded a $250,000 Arkansas IDeA Network of Biomedical Research Excellence (INBRE) grant to fund his research program on bacteria for the next two and a half years.

His proposal was chosen from a group of eight applicants for this single award. Funding for Dr. Funk’s research began in January 2013. It is underwritten by a grant from the National Institute for General Medical Sciences under the Institutional Development Award (IDeA) Program of the National Institutes of Health.

Dr. Funk is studying Coxiella Burnetii, the bacterium that causes the disease Q Fever. In collaboration with Dr. Daniel Voth, Dr. Funk’s mentor from the University of Arkansas for Medical Sciences, the research will involve using a nonpathogenic strain to study how the bacteria are able to use the host cell to form a protected replication compartment. The findings of this research will be used to identify potential drug targets that could lead to new treatments for Q fever and the symptoms that it causes.

Three students Senior Biology majors - Olivia Hilario, Marissa Podgorski and Kyle Crosser have been selected by Dr. Funk to join the research team for the summer. They will receive a stipend of $3000 plus $500 for living expenses. Techniques that will be used during the project include protein gel electrophoresis, immunoblotting, PCR, DNA cloning, DNA gel electrophoresis, and fluorescence microscopy. Students will have the opportunity to present their research at regional and national scientific conferences.
Glenna Belle Davis Award is Reinstated

Senior Sports Medicine major, Taylor Wood, was awarded the Dr. Glenna Belle Davis Award on Friday, May 3rd at the Senior Awards Convocation at the Cathedral of the Ozarks.

This award is given in honor of retired Professor of Kinesiology, Dr. Glenna Belle Davis, to recognize a graduating senior from the Department of Kinesiology for their Christian commitment, servant-leader qualities and academic achievement.

A monetary prize of $100 was given to Taylor and his name was added to a perpetual plaque which will be on display in the Kinesiology Department.

Mr. Todd Bowden, Associate Professor of Kinesiology and Dr. Danny Essary, Professor of Kinesiology, recommended Taylor for this award which was presented by Dr. Brian Greuel, Division Chair and Professor of Biology.

The names of the following alumni were also added to the perpetual plaque: Heather White, Sara Malley, Karen Talkington, Heidi Holthus, Mary Persson, CaraJean Wilson, Christopher Fowler, Jill Neufeld, Laurae Marty, Justin Thompson, Anna Buck and Brittany Higgins.

Faith-Science Integration Award is Established

The Faith-Science Integration Award is a new award that was given by the Division of Natural & Health Sciences this year.

The purpose of this award is to recognize a graduating senior in the science or mathematics field who has best exemplified a growing faith in Jesus Christ that permeates all areas of life.

The student should also demonstrate an appreciation for the harmony that exists between the Bible and an understanding of the world through science and mathematics. Finally, they should be able to apply this understanding to Christian ethics.

Anna Lane, senior Biology major, was nominated by Mrs. Jane Beers and selected by the Division, as the student that best exemplifies the criteria of this award. Dr. Brian Greuel, Division Chair and Professor of Biology presented Anna with this award on Friday, May 3rd at the Senior Awards Convocation at the Cathedral of the Ozarks.

A monetary prize of $100 was given to Anna and her name was added to a perpetual plaque which will be on display in Bell Science Hall.

The GBD Award is being reinstated after several years of inactivity. It will be retroactively awarded to graduates from the past ten years.

The names of the following alumni were also added to the perpetual plaque: Heather White, Sara Malley, Karen Talkington, Heidi Holthus, Mary Persson, CaraJean Wilson, Christopher Fowler, Jill Neufeld, Laurae Marty, Justin Thompson, Anna Buck and Brittany Higgins.

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Division Honors Excellence in Research

The NHS Undergraduate Research Award is another new award that was given by the Division of Natural & Health Sciences this year.

The purpose of this award is to recognize a senior in science or mathematics that has actively participated in and demonstrated a thorough understanding of a research project. The student should also have presented the research at a professional conference and/or a variety of other educational venues.

Senior Mathematics Major, Clark Scholz, was nominated by Dr. Daniel Main and selected by the Division as the student that best displays excellence in the completion of an undergraduate research project. Clark was presented with his award by Dr. Brian Greuel, Division Chair and Professor of Biology at the Friday, May 3rd, Senior Awards Convocation held at the Cathedral of the Ozarks.

Clark received a $100 monetary prize with his award and his name was added to a perpetual plaque to be displayed at Bell Science Hall.

Jeremy Enders also created the logo for the NHS Undergraduate Research Award, which incorporates symbols from the physical and life sciences.
Kinesiology Department Revises Curriculum and Majors

Starting in the fall of 2013, the Division of Natural & Health Sciences will offer a single Bachelor of Science degree in Kinesiology with an emphasis in Sports Medicine or Health/Wellness.

Current students majoring in Sports Medicine or Exercise Studies will be allowed to complete their degrees. According to Dr. Danny Essary, Professor of Kinesiology, this change will provide students with a stronger foundation in varied areas of human movement as it relates to exercise, fitness and health.

Along with this restructuring, the program has added a few new courses and deleted others to better prepare students.

Under the leadership of Essary and Mr. Todd Bowden, Associate Professor of Kinesiology, Kinesiology-related majors have continued to expand at JBU. Currently with forty-five students studying Sports Medicine or Exercise Studies, this major remains a popular area of study.

Marine Biology Students Travel to the Florida Keys

On March 16th, twelve students from Dr. Tim Wakefield’s Marine Biology Class set off for an adventure to the Florida Keys over the spring break holiday. This is the 6th trip to the Keys that Dr. Wakefield has directed, which gives students an opportunity to see and experience the very environment, habitat, flora and fauna that they have been discussing in the Marine Biology class. It is a true opportunity for hands-on learning! Accompanying Dr. Wakefield and students on this trip was chaperone, Michelle Baker, a JBU Biology graduate.

After the 27 hour drive to the Keys, students settled in at the Jonathan N. Roth Marine Biology Station in Layton, Florida. This facility, owned by Goshen College (another CCU school) and rented by JBU, was home to these students for the next five days. During the trip, students participated in four snorkeling excursions. Two of these trips included a boat trip to Key Largo’s John Pennekamp State Park, a national marine sanctuary with a coral reef system. Students also visited The Turtle Hospital, Robbie’s Marina to feed wild tarpon, and Ann’s Beach for an afternoon of relaxation. The final event of this time was a trip to Key West for a time of souvenir shopping and a seafood dinner for all.

The Marine Biology class lab fees of $700 were used to cover the costs for this trip and the trip was the “lab portion” of the class. As such, the students were required to maintain a naturalist journal, which recorded their observations and experiences. Dr. Wakefield also encouraged students to record their thoughts and feelings. Drawing upon their excellent scientific training from JBU, students had the opportunity to connect with their Creator in this wonderful environment.

Senior Field Biology Major, Bethany Garcia expressed it this way: “This trip reminded me of the world outside my own world. As a student, I study and test on all the information in the books, and it seems that is all there is to know, but that is the farthest from the truth. Being in Florida was nice, since it was spring break, but I was reminded why I am pursuing a Biology degree and that no picture, diagram, or video can truly capture the beauty that I experienced. I thank God for the world He gave us for a home and the beauty He put in it. This trip was a great experience and just a taste of what is out there.”

Some of the highlights for this year’s students included swimming with a juvenile manatee and observing a 6-7 ft. bull shark, great barracudas, a large puffer-fish, a moray eel, amazing corals and many other different fish. They were also able to observe lots of recuperating sea turtles and experienced a surprise visit from a pod of dolphins, including a baby!

The next Florida Keys Marine Biology Trip is scheduled for spring 2014. After this date, the lab experience will be offered every spring of an even year. For more information, contact Dr. Wakefield.

The Marine Biology class poses for a group picture.
JBU Math Team Earns 3rd Place in State Math Competition

Congratulations to the JBU Math team coached by Dr. Frank Blume for placing 3rd out of 13 teams at the Arkansas Undergraduate Mathematics Competition!

The event was held on February 23rd at the University of the Ozarks in Clarksville, AR.

JBU students participating in this event included Jonathan Bracklein (senior, Chemistry), Ernesto Lopez Chan (junior, Engineering), Luke Macfarlan (sophomore, Chemistry), and Clark Scholz (senior, Mathematics). Each student received $20 in prize money. Well done!!

Division Students Impact Future Generations for Science

In the spring, fourteen Chemistry, Biochemistry, and Biology students volunteered to meet with about twenty elementary-school-age children at the Boys and Girls Club in Siloam Springs to impart their passion for science.

The meetings happened once a week for twelve weeks. Activities such as dissecting owl pellets, raising butterflies and using chemical reactions to shoot bottle rockets inspired 3rd through 5th graders to see science in a new and exciting light.

Dr. Carla Swearingen, Associate Professor of Chemistry and Kyle Scoggin, Club Unit Director, supervised the program, which was entitled SCIENCountErs. Funded by a grant from the National Science Foundation to the University of Wisconsin, this service opportunity has opened the doors to building science into young people’s lives and has been a win-win situation for both the JBU student volunteers and the young learners. Mr. Scoggin commented, “The kids were very excited each and every Tuesday for the SCIENCountErs. It was one of the most successful programs that we have had here at the Boys & Girls Club of Western Benton County. The volunteers did a great job interacting with the kids and the lessons/activities were always well prepared.”

Dr. Swearingen hopes to continue SCIENCountErs. She will investigate other sources for funding and continue to give students the opportunity to be involved.

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Plan now to join us for a Division of Natural & Health Sciences Reunion during Homecoming 2013. We will host a brunch at Bell Science Hall on Saturday, October 5th from 9:00–11:00 a.m. Join alumni and current/former professors and their spouses for a time of fellowship and reminiscing.

Gregory Varner, Assistant Professor of Mathematics, successfully defended his dissertation on May 3rd, receiving his Ph.D. in Mathematics.