NetVUE Grant to Fund the PC Launch Program for Vocation, Leadership and Service

Dr. Anita Gustafson, professor of history, and a cross-disciplinary team of undergraduate faculty were awarded a NetVUE Program Development grant for $50,000 from the Council for Independent Colleges and the Lilly Endowment.

This grant will fund the “PC Launch Program for Vocation, Leadership, and Service.” The program is designed to facilitate the integration of a liberal arts education with pre-professional development in order to prepare students to lead lives of meaning and purpose.

Dr. Gustafson said the PC Launch “will assist students as they make key decisions about their future careers, leadership roles, and service to their families and communities, providing a platform for an innovative four-year journey for PC students.”

Workshops on vocation, service, graduate school, career paths and a mentoring program which pairs participating PC alumni with PC students will provide focused opportunities for career exploration and growth. PC Launch will sponsor a campus-wide Day of Service, increase course-based service learning projects, and further develop Maymester opportunities. Additional resources will be developed to train faculty and staff to serve as effective mentors to students’ vocational exploration.

“PC Launch’s focus on the intellectual and theological exploration of vocation fits perfectly with PC’s identity as a church-related college, emphasizing service to others and educating students for a lifetime of personal and vocational fulfillment,” Gustafson said.

IN THIS ISSUE

IACP Grant to fund research into the efficacy of topical pain creams • Students to present research at the National Conference on Undergraduate Research • Dr. Nancy Goodbar to serve as President for SCSHP • Interdisciplinary Faculty Research Retreat • Do Evangelical Protestants in Brazil and U.S. have different political attitudes? • Fourth-year Pharmacy Student publish research findings • IACUC Updates • New Grants Funded
Dr. Scott Asbill, chairman of Pharmaceutical and Administrative Sciences and Professor of Pharmacy, was awarded a $10,000 research grant from the International Academy of Compounding Pharmacists. This grant is the second grant award Dr. Asbill has received for his studies to determine whether compounded gels reduce pain.

“Chronic pain in America costs upwards of $75 billion annually in lost wages, lost productivity, medical expenses, legal fees and compensation,” said Dr. Asbill. “And, despite taking prescribed medication for pain, patients with chronic pain continue to have pain of moderate severity.”

Pharmacists have filled a gap in the treatment of chronic pain by compounding pain-relieving drugs into topical gels and creams. A number of drugs in the area of pain management have been formulated and compounded by pharmacist to treat conditions such as fibromyalgia, shingles, joint pain, arthritis and a variety of other conditions.

During the last 10 years, the number of prescriptions that have been compounded by pharmacists has increased dramatically. In spite of increasing sales, there are limited studies that show if the medications cross through the skin and actually relieve pain.

Evan Bryson, an undergraduate pre-pharmacy student from Tri County Technical College, worked with Dr. Asbill in the Pharmacy Research Summer Internship Program and found variable absorption rates across the skin for the different pain medications. This current grant will determine whether those variable absorption rates will produce more or less pain relief.

“These studies are critically important to determine whether pharmacists’ compounded pain medications are an effective means to reduce chronic pain. This grant will allow us to conduct substantive research to answer these questions,” said Asbill.
PC BIOLOGY STUDENTS TO PRESENT FISH MICROBIOME RESEARCH AT NATIONAL CONFERENCE

The guts of Charleston Harbor and Antarctic fish are making for interesting research for Presbyterian College students Mariana Anderson, Rachael Parks, William Moore and Jessica Cole. The students are spending extracurricular time in the lab trying to figure out how temperature impacts the bacteria that live in the guts of fish.

The students gained national attention when their project titled, “Metagenomics indicates the microbial communities of fish guts vary by both trophic level and habitat,” was selected from 4,000 abstracts for presentation at the National Conference on Undergraduate Research for “demonstrated unique contributions to their field of study.” The students will present their findings at the University of Kentucky during the April 3-5 conference.

In recent years, scientists have come to understand that for most organisms, the bacterial microbiome is massive in size. In more ways than one, humans really are composed of more alien, or bacterial genes, than human genes. In particular, guts are loaded with bacteria that are required to help digest food. How the bacterial microbiome may change depending upon where an organism lives and what it feeds on was the topic of this project.

Working with biology professors Dr. Jeff Grim and Dr. Stuart Gordon, the students had to first select the fish and the habitats they wanted to investigate. They chose the spotted sea trout (carnivore) and the flathead mullet (herbivore) from Charleston Harbor in South Carolina and the blackfin icefish and the black rockcod from the Antarctic. The bacterial genome of these different fish were then identified and compared.

The research was supported by National Science Foundation Grants (ANT-1019305 and PGRP NSF 11-500) and a Presbyterian College Faculty Development Committee Grant.

GOODBAR ELECTED PRESIDENT OF SOUTH CAROLINA SOCIETY OF HEALTH-SYSTEM PHARMACISTS

PC School of Pharmacy Assistant Professor Nancy Goodbar will lead the South Carolina Society of Health-System Pharmacists as president. The South Carolina Society of Health-System Pharmacists mission is to enhance the roles of pharmacy professionals in advancing public health, safety, patient care and patient outcomes.

“This opportunity will allow me to serve my profession and focus on important statewide and national legislation, provide numerous continuing education and educational programs, unite pharmacists across the state, and enhance the role of pharmacy students in leadership roles,” said the 2004 PC graduate.

In addition, Dr. Kathryn Freeland was appointed as a regional director on the board of SCSHP. Dr. Freeland is assistant professor of pharmacy practice at the School of Pharmacy.

PCSP faculty are helping to lead the way in SCSHP to promote safe and effective pharmacy care through education, research and legislative action. The organization focuses on providing quality continuing education and opportunities for members to improve their clinical skills and leadership.

Dr. Goodbar and Dr. Freeland were installed during the society’s March meeting and will serve three-year terms.
SECOND ANNUAL INTERDISCIPLINARY FACULTY RESEARCH RETREAT

More than 30 PC faculty members attended the second annual Interdisciplinary Faculty Research Retreat held at the Presbyterian College School of Pharmacy in December. Faculty members representing numerous disciplines including Pharmacy, Biology, Chemistry, Physics, Computer Science, Psychology and Computer Science were present.

A key component of the retreat was an enthusiastic discussion of a long-term faculty vision for research at Presbyterian College and the importance of research to the recruitment and education of undergraduate scholars.

Research strengths at Presbyterian College include a faculty actively engaged in research, an undergraduate student body excited about research, Honors research opportunities, Summer Fellows Program, Pharmacy Research Summer Internships, an Honor's Day Symposium to showcase research and scholarship on campus, and the new involvement of Presbyterian College in South Carolina IDeA Networks of Biomedical Research Excellence.

STAYING IN-CONTROL THROUGH HIGHER SELF-ESTEEM

Dr. Jay Michaels (Assistant Professor, Psychology) presented his research on “Self-Stability through Flexibility: Greater Resilience through a Coherent but Dynamically Flexible Self” at the third annual preconference on Dynamical Systems and Computational Modeling in Social Psychology in Austin, Texas. From his research, Michaels has determined that an individual’s sense of self-esteem and self-control are linked; those who have higher levels of self-esteem tend to be less susceptible to negative self-evaluation following a difficult task.

Meg Genevie, Jamie Carson, Bridget Hogan, Kelsey Mason, Chelsea Stollar and Bri Ward, are PC undergraduates who worked on the project as part of their Experimental Study of Behavior course.

Presbyterian College senior student Meg Genevie joins Jay Michaels as a co-author on a poster titled “Self-Esteem as a Stabilizing Force: Higher Self-Esteem Constrains Mental Dynamics following Ego Depletion,” that will be presented as part of the main Society for Personality and Social Psychology conference. Michaels' research is on-going and continues to involve students.

More>> https://sites.google.com/site/dynamicalandcomputational/2013_SPSP_SocDynamics_preconference


RECENT TRAINING COMPLETED

- Dr Kate Moore (Pharmacy) completed the ACCP Academy's Teaching and Learning Certificate Program.
- Dr. Kayce Shealy (Pharmacy) and Dr. Tiffaney Threatt (Pharmacy) passed the Certified Diabetes Educator exam.
- Dr. Jennifer Clements (Pharmacy) and Dr. Eileen Ward (Pharmacy) passed the Board of Pharmacy Specialties Ambulatory Care Pharmacy Examination.
PHARMACY STUDENTS PUBLISH THEIR RESEARCH FINDINGS

Lyndsay Gormley and Amber Turner worked with Dr. Kathryn Freeland to publish “Clonidine and Guanfacine IR vs ER: Old Drugs with ‘New’ formulations” in the journal of the College of Psychiatric and Neurological Pharmacists. Clonidine and guanfacine have been used for years to treat high blood pressure. In recent years, clonidine and guanfacine have been used to treat patients with attention-deficit / hyperactivity disorder who do not respond to traditional medications. In addition to new uses for these medications they have also been developed into long-acting formulations. The purpose of this article was to review the new uses of old medications with the goal of understanding dosing, adverse effects, and costs of treatment. More >> http://cpnp.org/resource/mhc/2014/01/clonidine-and-guanfacine-ir-vs-er-old-drugs-new-formulations

DO EVANGELICAL PROTESTANTS IN BRAZIL AND THE UNITED STATES HAVE DIFFERENT POLITICAL ATTITUDES?

Dr. Erin McAdams and Dr. Justin Lance, both assistant professors in political science, published a co-authored piece titled "Religion’s Impact on the Divergent Political Attitudes of Evangelical Protestant in the United States and Brazil" in the October 2013 issue of Politics and Religion. This research project examined how political attitudes are influenced by theological beliefs in the the two countries. In the United States, the conservative political views of Evangelical Protestants corresponds to their conservative religious beliefs. In contrast, in Brazil Evangelical Protestants are found to maintain moderate-to-liberal political attitudes. This study suggests that political environment impacts how religion influences political attitudes. The results were highlighted as innovative findings from academia in the Boston Globe's "Brainiac" blog.

MARCH ON HEALTH RUN AND FAIR SET FOR MARCH 15

The Presbyterian College School of Pharmacy kicks off its Second Annual March on Health as a benefit for the summer programs of the Clinton YMCA on March 15. Supporters will participate in a 5K race, run or walk, and a children's fun-run at Bailey Stadium on the Presbyterian College campus. Shortly following the race, participants and all members of the community are invited to visit “Reaching for a Healthier You” an interactive health fair focusing on wellness, at the YMCA, from 10 a.m–2 p.m.

Last year’s proceeds of $1500 were donated directly to the Clinton YMCA to support children and families who wish to participate in the Y’s summer youth programs but might not have the means to do so. Founder of the event Michael Cohen, PCSP Class of 2015, says that the March on Health addresses a community need and sends the positive message to all that being active matters for good health. Last year was the first year that funds were raised for such a purpose. The run is professionally timed and managed, and draws both serious and recreational participants.

Many thanks to our wonderful sponsors including Adair Apothecary, Bi-Lo, Clinton Discount Pharmacy, Clinton TrueValue Hardware, CrossFit, Great Taste Asian Food, Greenville Health System, Ingle's, Orion, Palmetto Drugs, Panera, Printers Associates, PeaceLoveMom, Run In, Sadler-Hughes Apothecary, Senior Garcias, Sodexo, TD Bank, the YMCA and Yo' Cup.

To participate, register online at: http://www.active.com/clinton-sc/running/distance-running-races/march-on-health-5k-2014

WHERE: Presbyterian College main campus at Bailey Stadium 105 Ashland Avenue, Clinton, SC 29325

TIME: 7:30 a.m.-8:15 a.m. Registration/ Check in 8:30 a.m. Start time 5K Run 8:35 a.m. Start time 5K Walk 9:15 a.m.: Start time Children’s Fun Run

COST: $25 Run; $20 Walk; $10 Children’s Fun Run.

HEALTH FAIR:
10 a.m.-2 p.m. at the YMCA-Clinton, 100 YMCA Drive, Clinton, SC 29325

Please contact Michael Cohen at 813-298-9359 or macohen@presby.edu if you would like any additional information.
UPCOMING STUDENT RESEARCH OPPORTUNITIES & EVENTS

- PC’s Summer Fellows Program for undergraduate student research is back.
  
  For more information >> www.presby.edu/academics/student-research/summer-fellows/

- Applications are open for PCSP’s Pharmacy Research Summer Internship for pre-pharmacy and pharmacy students.
  
  For more information >> http://pharmacy.presby.edu/blog/2014/02/20/5422/

- Mark your calendar for Honor’s Day on April 24, 2014. Abstract submission is due March 14, 2014.
  
  For more information >> www.presby.edu/academics/student-research/honors-day-symposium/

- New Program: Applications are open for PCSP’s International Pharmacy Research Summer Internship for pharmacy students to spend 8 weeks at University of Alcalá in Madrid, Spain.
  
  For more information >> http://pharmacy.presby.edu/

CENTER FOR ENTREPRENEURIAL DEVELOPMENT

Dr. Kayce Shealy has been named interim Director of the Center for Entrepreneurial Development at Presbyterian College School of Pharmacy. We bid farewell and a warm thank you to Dr. Laura Happe as she turns over direction of this Center to Dr. Shealy. The Center for Entrepreneurial Development is a unique program that cultivates an entrepreneurial spirit while students explore the wide variety of pharmacy-related career paths available after graduation. Aligned with PCSP’s mission to Care for the Community, pharmacy students learn to apply sound business principles to address the health care needs of a diverse and dynamic population and improve health care across the state.

All PCSP students are invited to participate in workshops and networking opportunities that include developing a business plan, budgeting and cash flow management and social media marketing strategies.

UPCOMING EVENTS

Honors Day Symposium

April 24, 2014

Location: Presbyterian College

Join us for a day recognizing undergraduate and pharmacy student scholarship and research accomplishments.

National Take-Back Day initiative

April 26, 2014

PCSP will partner again with local law enforcement to host the drug disposal event. In addition, PSCP will also partner with Project Rx, a drug disposal initiative that started in the Greenville area through ReWa: Renewable Water Resources.
INSTITUTIONAL REVIEW BOARD UPDATES

A big thank you to PC’s IRB members who have spent countless hours reading and reviewing IRB proposals from across campus! Thanks also to the great research faculty who have been keeping the IRB busy this year. It is encouraging to watch the research enterprise grow here at PC. As a final step in implementing the IRB process at PC, we are pleased to announce the availability of CITI Program training for all students and faculty engaged in human research. CITI Program’s Human Subjects Research content includes two tracks, one with a biomedical focus, and another designed for the social, behavioral, and educational disciplines, each of which covers the historical development of human subjects protections as well as current information on regulatory and ethical issues. Watch for more details soon to come on the IRB website.

Next IRB proposal submission dates:
April 23, 2014

Contact IRB:
irb@presby.edu
www.presby.edu/ir/irb/

WHY ARE IRBS IMPORTANT?

The IRB serves as an objective third party, an oversight committee, governed by Federal Regulations with the purpose of protecting and managing risk to human participants involved in research. Research is defined as a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to general knowledge. The goals of an IRB are

• To promote the safety and well-being of human participants
• To ensure adherence to ethical values and principles of research
• To ensure implementation of ethical and scientifically valid research
• To ensure responsible conduct of research

INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE

The IACUC meets to review animal use protocols during the last week of September, January, and May. Find information at www.presby.edu/biology/animal-care-concerns/. Contact Dr. Ron Zimmerman at rzim@presby.edu with questions or concerns.
NEW GRANTS FUNDED

PC Faculty and Staff did a great job submitting and bringing in grants in 2013. We have likely missed some grants so please send the information (spor@presby.edu) so we can include it in the next newsletter. We are proud of the research and scholarship that is going on every day at PC!

• Dr. Anita Gustafson was awarded a NETvue proposal titled “The PC Launch Program for Vocation, Leadership, and Service” to the Lilly Foundation for $50,000.
• Drs. Scott Asbill, Alfonso Romero-Sandoval, and Sarah Sweitzer received a $10,000 grant from the International Academy of Compounding Pharmacists (IACP) for "Evaluation of Compounded Pain Gels in an In Vivo Preclinical Pain Model."

FACULTY AND STUDENT AWARDS & PRESENTATIONS

• Dr. Alfonso Romero-Sandoval was awarded the “Best Oral Presentation” for his presentation on "Implication of the phosphatase MKP-3 in the transition from acute to chronic postoperative pain” at the Carolinas Pain Society Annual Meeting.
• The Pharmacy School’s Academy of Managed Care Pharmacy student chapter was selected to share their work on the March on Health FK Children’s Fun Run at the 26th annual AMCP national meeting in Tampa in April.
• Dr. Kate Moore taught a continuing education course on Evidence-Based Guidelines in Hypertension Treatment for Pharmaceutical Education Consultants on February 6, 2014.
• Dr. Nancy Goodbar was recently elected as president-elect of the South Carolina Society of Health-Systems Pharmacists. Dr. Kathryn Freeland was elected as Region 1 Director. Both will be installed at the annual meeting March 7-9 in Hilton Head, S.C.
• Dr. Tommy Johnson was recently elected to serve as board member for National Certification Board for Diabetes Educators. Dr. Johnson will serve a four-year term and is the only pharmacist on the board.
• Dr. Kayce Shealy, along with Dr. Betsy Blake of SCCP, was invited to facilitate and speak at the Pharmacy Leadership Summit, hosted by RADM Scott Giberson, Acting Deputy Surgeon General, at the Office of the Surgeon General.
**SUBMITTED GRANTS**

No grants get funded without first being submitted! If we missed your grant submission it is because you didn't file a proposal processing form. Please contact us to remedy (spor@presby.edu).

- Dr. Chris Farrell (Pharmacy) submitted a $100,000 grant titled “Somatic alterations of the FGD1 promoter region in the late stage breast cancer” to PhRMA Foundation.
- Dr. Kris Virga (Biology) submitted a NIH R15 grant for more than $350,000 titled “Comprehensive evaluation of the activity and utility of pantothenate-based antimicrobials targeting fatty acid biosynthesis.” Dr. Jim Wetzel (Biology) and Dr. Stuart Gordon (Biology) are collaborators.

**FACULTY PUBLICATIONS**

Great job to the PC Faculty who have recently published in books and journals. We have likely missed some publications so please send the citation (spor@presby.edu) so we can include it in the next newsletter. Faculty and students are doing innovative and cutting edge scholarship at PC!

**BOOK CHAPTERS**


**MANUSCRIPTS**

UPCOMING GRANT OPPORTUNITIES

NIH: MARC Undergraduate Student Training in Academic Research Training Grant (T34) PAR-13-205
The purpose of the Training program is to assist undergraduate institutions to increase the number of well-prepared underrepresented students who, within three years of graduation, matriculate into competitive/research active Ph.D. or combined M.D.-Ph.D. programs in the biomedical and behavioral sciences, go on to research careers and will be available to participate in NIH-funded research.

NSF: Collections in Support of Biological Research (CSBR) NSF 13-557
The CSBR Program provides funds: 1) for improvements to secure, improve, and organize collections that are significant to the NSF BIO-funded research community; 2) to secure collections-related data for sustained, accurate, and efficient accessibility of the collection to the biological research community; and 3) to transfer collection ownership responsibilities. The CSBR program provides for enhancements that secure and improve existing collections, result in accessible digitized specimen-related data, and develop better methods for specimen curation and collection management.

NSF: Research Experiences for Teachers (RET) in Engineering and Computer Science, Supplements and Sites NSF 11-509
The program supports the active involvement of K-12 science, technology, engineering, computer and information science, and mathematics (STEM) teachers and college faculty in engineering and computer science research in order to bring knowledge of engineering, computer science, and technological innovation into their classrooms. The goal is to help build long-term relationships between K-12 STEM teachers, college faculty, and the NSF university research community by involving the teachers and college faculty in research and computer science research and helping them translate their research experiences and new knowledge into classroom activities.

NIH: Initiative for Maximizing Student Development (IMSD) (R25) PAR-14-121
The goal is to support educational activities that enhance the diversity of the biomedical, clinical and research workforce. To this end, this funding opportunity announcement encourages the development of innovative educational activities with primary focus on research experiences, courses for skills development and mentoring activities.

NSF: Sustainability Research Networks Competition 14-534
The goal is to bring together multidisciplinary teams of researchers, educators, managers, policymakers and other stakeholders to conduct collaborative research that addresses fundamental challenges in sustainability. The 2014 SRN competition will fund research networks with a focus on urban sustainability (www.nsf.gov/sees/).

HRSA grant funding opportunities
HRSA makes grants to organizations to improve and expand health care services for underserved people, focusing on the following program areas: Health Professions, HIV/AIDS, Maternal and Child Health, Primary Health Care/Health Centers, Rural Health, and Healthcare Systems. For more information >> http://www.hrsa.gov/grants/index.html

National Endowment for the Humanities
The National Endowment for the Humanities is one of the largest funders of humanities programs in the United States. Grants are awarded to strengthen teaching and learning in schools and college, facilitate research and original scholarship, provide opportunities for lifelong learning, preserve and provide access to cultural and educational resources, and strengthen the institutional base of the humanities. A new initiative, entitled Standing Together: The Humanities and the Experience of War, will support the nation’s active duty military, veterans, military families, and civilians by encouraging and expanding humanities projects that focus on the history, experiences, and meaning of war and military service. For more information >> http://www.neh.gov/grants