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Faculty Achievements, April 2015

Otterbein University

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OFFICE OF ACADEMIC AFFAIRS

WENDY R. SHERMAN HECKLER, Associate Vice President
for Academic Affairs and Dean of University
Programs/Professor in Education

Presentations and Posters

Sherman Heckler, W. (2015, April). The contested
contribution of HPS to science curriculum design.
Paper presented at the annual meeting of the
National Association for Research in Science
Teaching (NARST), Chicago, IL.

DEPARTMENT OF ART

NICHOLAS A. HILL, Professor

Artistic Exhibits and Performances

"The Tokyo and Kyoto Projects: Cyanotypes and
Lithographs," solo exhibition, Hiestand Galleries,
Miami University, Oxford, OH.

35th Biennial Print and Drawing Exhibition, one
intaglio print accepted to juried international
exhibition, Bradley University, IL.

Honors and Awards

Selected through a jurying process to be one of
twelve American printmakers participating in
BIGINK 2015, the production of large scale
woodcut prints in Portland, ME. Each artist will
create and print a woodcut print up to three by
five feet in size.

Presentations and Posters

Presented two lectures on printmaking and
illustration, a gallery talk and critiques with
graduate (MFA) students at Miami University,
Oxford, OH.

DEPARTMENT OF BIOLOGY AND EARTH SCIENCE

KEVIN D. SVITANA, Associate Professor

Presentations and Posters

Assessing Rainwater Capture for Lawn Irrigation: A
Case Supporting Sustainable System Conversion.
Poster presentation at the National Groundwater
Association's Annual Groundwater Summit, San
Antonio, TX. March 16, 2015.

DEPARTMENT OF BUSINESS, ACCOUNTING AND ECONOMICS

YIYUAN LIU, Assistant Professor

Presentations and Posters

Liu, Y. and Ghose, S. (2015). "How Customers
Manage Purchase when they Lose or Gain?
Effects of Price Surcharges and Savings on

Expenditures." 2015 Winter AMA Marketing
Educators' Conference, San Antonio, TX.

DEPARTMENT OF CHEMISTRY

JOHN T. TANSEY, Professor

Grant Participant

Member of the NSF ASBMB RCN-UBE (Research
Coordination Networks-Undergraduate Biology
Education) Steering Committee. Currently
working in the framework of the new ASBMB
guidelines to develop recommendations and
assessment tools for BMB programs nationally,
2012-present.

Honors and Awards

Named an Education Fellow of the American Society
for Biochemistry and Molecular Biology.

American Society for Biochemistry and Molecular
Biology Undergraduate Faculty Travel Award,
March 2015.

Presentations and Posters

C. J. Hayes; J. A. Bennett; J. T. Tansey, Integrating an
authentic research experience across multiple
chemistry and biology lab courses at Otterbein
University. Biennial Conference on Chemistry
Education 2014. Grand Valley State University:
Allendale, MI. August 2014.

Bowman, J. and Tansey, J.T., Conservation of lipid
droplet proteins in the evolution of *Animalia*.
National meeting of the American Society of
Biochemistry and Molecular Biology (ASBMB),
March 2015.

Bickers, B.N., Saari S., Fox, A., Tansey, J.T. and
Bennett J.A., Science Outreach with the UAN at
Otterbein University. National meeting of the
American Society of Biochemistry and Molecular
Biology (ASBMB), March 2015.

Tansey, J.T., Use of Social Media to Manage Out-of-
Class Discussion. National meeting of the
American Society of Biochemistry and Molecular
Biology (ASBMB), March 2015.

Published Reviews, Teaching Applications, and Essays

"How to get the most out of the ASBMB annual
meeting" *Enzymatic* (Spring 2015), reposted in
the ASBMB student blog The Substrate
[http://substrate.asbmb.org/2015/03/how-to-
get-the-most-out-of-the-asbmb-annual-meeting/](http://substrate.asbmb.org/2015/03/how-to-get-the-most-out-of-the-asbmb-annual-meeting/)

Service/Leadership in the Profession

Meeting co-organizer and host: ASBMB
Implementing Vision and Change: Concept-
Driven Teaching Strategies in Biochemistry and

Molecular Biology, Kentucky Wesleyan University, May 31, 2014.
Member of the Editorial Board of Biochemistry and Molecular Biology Education (BAMBED), 2014-present.
Member of the ASBMB Programmatic Assessment Committee, 2013-present.
Head Judge for the Metabolism section, ASBMB student poster competition, March 2015.
Ad Hoc reviewer for Biochemica et Biophysica ACTA, PLOS one, and Integrative Biology.
Preparing Future Faculty Mentor to The Ohio State University graduate student Cassandra May.
Named an Education Fellow of the American Society for Biochemistry and Molecular Biology.

DEPARTMENT OF COMMUNICATION

CHRISTINA L. REYNOLDS, Professor
Presentations and Posters
Participant, competitively selected Panel "Learning from the Past to Meet future Pedagogic Challenges in Liberal Arts Institutions." National Communication Association annual convention, Friday, November 21, 2014, Chicago, IL.

CENTER FOR COMMUNITY ENGAGEMENT

MELISSA K. GILBERT, Associate Dean for Experiential Learning/Director, Center for Community Engagement
External Grants and Fellowships-Primary Investigator
City of Columbus, The Columbus Foundation, Franklin County (\$4000 award) to support the Otterbein Community Garden.

DEPARTMENT OF EDUCATION

SUNHWA JUNG, Associate Professor
Presentations and Posters
Jung, S., & Sainato, D. M. (2015, March). *Teaching games to young children with autism*. Poster session presented at the 5th Annual Conference of Association of Professional Behavior Analysts, Seattle, WA.

DEPARTMENT OF ENGLISH

BETH RIGEL DAUGHERTY, Professor
Books, Book Chapters, and Journal Articles (peer reviewed)
"Of Scrapbooks, War, and Newspapers: Leslie Stephen's Legacy." *Virginia Woolf and the*

(Common)Wealth Reader: Selected Papers of the Twenty-Third Annual Conference on Virginia Woolf. Ed. Helen Wussow. Clemson, SC: Clemson U Digital P, 2014. 39-44.

Presentations and Posters

"A 'vain and vicious system': The Lectures of Virginia Stephen and Virginia Woolf." The Louisville Conference on Literature and Culture since 1900. University of Louisville, KY. February 27, 2015.

Service/Leadership in the Profession

Served as peer reviewer (reviewed manuscripts) for the following journals: *PMLA (Publications of the Modern Language Association)*, *InSight: A Journal of Scholarly Teaching*, and *Woolf Studies Annual*.

THE GRADUATE SCHOOL

BARBARA H. SCHAFFNER, Dean, School of Professional Studies and The Graduate School/Professor in Nursing

Books, Book Chapters, and Journal Articles (peer reviewed)

With S. Payne and J. Rocks (2014). Self-direction in learning and academic motivation development in undergraduate health profession students. *International Journal of Self-Directed Learning*, 11(1), Spring, 41-51.

DEPARTMENT OF HEALTH AND SPORT SCIENCES

PAUL D. LONGENECKER, Senior Instructor
Community Outreach/Service Learning
Preparing Future Faculty Mentor Program, The Ohio State University, Ben Namen, 2014-15.
Westerville Library Foundation, Board of Trustees, Vice-President.

Honors and Awards

2015 Edgar C. Hayhow Award from the American College of Healthcare Executives. Best article of 2014 in the *Journal of Healthcare Management*. Co-authored with Clinton O. Longenecker PhD, The University of Toledo.

Presentations and Posters

"Ethical Challenges of Hospice Managers: A Retrospective Review." National Hospice and Palliative Care Organization 30th Management and Leadership Conference: The Future of End-of-Life Care, National Harbor, MD, April 30, 2015. Conference Co-Presenter with Marion Keenan, MA, MBA.

"Ethics for Hospice Managers: A Foundational Module of Hospice Manager Development Program." National Hospice and Palliative Care

Organization. Web-based course, February 2-March 2, 2015.

Publications and Essays (non-peer reviewed)

Longenecker, P.D. (2014). The ethical challenges of hospice managers. NHPCO National Center NewsLine, Winter edition. 28-32. Online link: http://pages.nxtbook.com/mercury/nhpco/NewsLine_2014Winter/src/docs/Ethical_Challenges_Winter_14_NewsLine.pdf

Service/Leadership in the Profession

The Patient Experience Journal, Reviewer
Journal of Healthcare Management, Reviewer
National Hospice and Palliative Care Organization, Research Committee Member

SHELLEY S. PAYNE, Assistant Professor

Books, Book Chapters, and Journal Articles (peer reviewed)

Payne, S., Rocks, J., & Schaffner, B. (2014). Self-direction in learning and academic motivation development in undergraduate health profession students. *International Journal of Self-Directed Learning*, 11 (1), 41-51. Retrieved from <http://sdglobal.com/journals.php>

ANN-CATHERINE SULLIVAN, Professor

Community Outreach/Service Learning

Workout, Recreation and Social Event Coordinator for Best of Both Worlds Collaborative Transition program between Westerville City Schools and Otterbein University.

Service/Leadership in the Profession

Secretary and Board of Directors for National Consortium for Physical Education and Recreation for Individuals with Disabilities 2013-present.

edTPA scorer for Pearson Education 2013-present.

Editorial Review Board The Physical Educator 2011-present.

CAEP Physical Education Reviewer 2013-present.

Head Start Body Start Physical Activity Consultant.

Adapted PE Central Expert (www.pecentral.org) 2001-present.

American Heart Association Instructor and Instructor Trainer.

American Red Cross Instructor and Instructor Trainer.

ERICA L. VAN DOP, Instructor

Community Outreach/Service Learning

Guided students through the organization, planning and implementation of Heart Chase in

conjunction with the American Heart Association. October 25, 2014.

Service/Leadership in the Profession

Presentation at Otterbein Spring Network

Conference titled "Commit to Be Fit" Westerville, OH. March 5, 2015.

Organizer, promoter and host of the National Exercise Trainers Association Group Fitness Certification workshop for Otterbein students and the greater community. Fifteen students attended and passed the national exam on February 21, 2015.

DEPARTMENT OF HISTORY AND POLITICAL SCIENCE

LA TRICE M. WASHINGTON, Associate Professor

Books, Book Chapters, and Journal Articles (peer reviewed)

Second book entitled Political Scandals: The Consequences of Temporary Gratification. Rowman and Littlefield Publishers, Inc., June 2014.

COURTRIGHT MEMORIAL LIBRARY

RARES G. PILOIU, Assistant Professor/Information Literacy Librarian

External Grants and Fellowships-Primary Investigator

Bibliothek & Information International (the international branch of Bibliothek & Information Deutschland) professional exchange grant, 800 Euros.

Presentations and Posters

"The more it changes: contemporary reevaluations of May '68," American Comparative Literature Association Conference, University of Washington, Seattle, WA, March 2015.

DEPARTMENT OF MATHEMATICAL SCIENCES

WILLIAM V. HARPER, Professor

Books, Book Chapters, and Journal Articles (peer reviewed)

Harper, William V. and Tom Bubenik, Pam Moreno, Steven Polasik, "Identifying Locations Of Active Corrosion Growth From Successive In-Line Inspections," Pipeline Pigging and Integrity Management Conference, Houston, TX, February 9-12, 2015.

Harper, William V., Reduced Major Axis Regression: Teaching Alternatives to Least Squares, International Conference on the Teaching of Statistics, Flagstaff, AZ, 2014.

Harper, William V. and Steven J. Polasik, Sean Keane, Tom Bubenik, "Quantifying The Impact Of Assumptions On Predicted Burst Pressure Assessments," International Pipeline Conference, Calgary, Canada, 2014, IPC2014-33648.

Harper, William V. and Joseph P. Bratton, Mitch Glass, Edgar Cote, Andy Gallagher, "Fitness-For-Service Of Unconstrained Shallow Dents," International Pipeline Conference, Calgary, Canada, 2014, IPC2014-33635.

Harper, William V. and Tom Bubenik, Pam Moreno, Steven Polasik, "Determining Reassessment Intervals From Successive In-Line Inspections," International Pipeline Conference, Calgary, Canada, 2014, IPC2014-33025.

MATTHEW J. MCMULLEN, Senior Instructor

Books, Book Chapters, and Journal Articles (peer reviewed)

Problem #13, American Invitational Mathematics Examination II, March 2015.

Presentations and Posters

"A Drunken Walk in Las Vegas-Catalan Numbers via Gambling," Ohio Mathematical Association of America Spring 2015 Conference.

ADRIANA NENCIU, Associate Professor

Presentations and Posters

"Nested GVZ-groups," invited talk at the Central Spring Sectional Meeting of the American Mathematical Society. Michigan State University, East Lansing, MI, March 14-15, 2015.

DAVID J. STUCKI, Senior Instructor

Publications and Essays (non-peer reviewed)

David J. Stucki and Joel M. Stucki. "Letters to Joel." *Math Horizons*, Vol. 22, No. 3 (February 2015), pp. 26-29. Published by: Mathematical Association of America. Article Stable URL: <http://www.jstor.org/stable/10.4169/mathhorizons.22.3.26>

DEPARTMENT OF MUSIC

AMY D. CHIVINGTON, Professor

Service/Leadership in the Profession

Director of Traditional Music, Indian Run United Methodist Church, Dublin, OH.

Clinician/Conductor, Heath High School Ohio Music Education Association Contest preparation, February 2015.

National Scoring Supervisor/Training, EdTpa, Pearson.

Educational Committee, Jazz Arts Group, Columbus, OH.

Gifted and Talented Identification, Columbus City Schools, April 2015.

DEPARTMENT OF NURSING

KAY A. BALL, Associate Professor

Books, Book Chapters, and Journal Articles (peer reviewed)

Ball, K., Doyle, D., Oocuma, N. (2015). Creating a perioperative nursing program to help solve nursing shortages in the OR. *AORN Journal*, 101(1),115-136.

Presentations and Posters

Ball, K. (December 3, 2014). Perioperative Nursing Goes to College: Forming a Relationship Between a Hospital and Academia to Provide a Nurse Pool for Employment in the Perioperative Setting. OR Managers' Conference. Vancouver, Canada.

Ball, K. (December 3, 2014). Risky Business in the OR: Controlling Potential Hazards. Perioperative Nurses Association of British Columbia. Maple Hill, Canada.

Ball, K. (January 19-20, 2015). Medical Laser Safety Officer Training Course. (Laser Institute of America-sponsor). Hong Kong.

Ball, K. (January 19-20, 2015). Laser Safety Awareness. (Laser Institute of America-sponsor). Hong Kong.

Ball, K. (January 19-20, 2015). Medical Laser Safety Officer Training Course. (Laser Institute of America-sponsor). Hong Kong.

Ball, K. (March 8, 2015). Orientation to AORN. Mobile Instruments and Service Inc., AORN Surgery Conference and Expo, Denver, CO.

Ball, K. (March 10, 2015). Becoming a smoke-free OR. ConMed, Inc. AORN Surgery Conference and Expo, Denver, CO.

Ball, K. (March 25, 2015). FSDC Evening with Scholarly Writers. Otterbein University. Meza Wine Bar, Westerville, OH.

Service/Leadership in the Profession

AORN (Association of periOperative Registered Nurses), National Scholarship Committee (2012-2015).

AORN of Central Ohio, Board of Directors (2008-2015). Legislative Committee Chair (2003-2015).

MidOhio District Nurses Association. Legislative Committee Chair (2012-2015).

Ohio Nurses Association. Health Policy Council member (2012-2016), Delegate to ANA convention (2013-2015).

Delaware County Smoke-Free Task Force member (2010-2016).

JOHN D. CHOVAN, Assistant Professor

Books, Book Chapters, and Journal Articles (peer reviewed)

Chovan, J. D., Cluxton, D., & Rancour, P. (2015). Chapter 4. Principles of Patient and Family Assessment. In, B. R. Ferrell, N. Coyle, & J. A. Paice (Eds.), *Oxford University Textbook of Palliative Nursing, 4th ed.* New York: Oxford University Press.

JACQUELINE J. HAVERKAMP, Assistant Professor

Books, Book Chapters, and Journal Articles (peer reviewed)

"Beyond Academic Evidence: Innovative Uses of Technology within e-Portfolios in a Doctor of Nursing Practice Program." Accepted manuscript by the *Journal of Professional Nursing*, Summer 2015. Authors: Jacqueline J. Haverkamp DNP, RN, CNP (Corresponding Author); Marjorie Vogt PhD, DNP, RN, CNP, CNE, FAANP.

DEPARTMENT OF PHYSICS

AARON W. REINHARD, Assistant Professor

Books, Book Chapters, and Journal Articles (peer reviewed)

Lin Xia, Laura A. Zundel, Juan Carrasquilla, Aaron Reinhard, Joshua M. Wilson, Marcos Rigol, and David S. Weiss, Quantum distillation and confinement of vacancies in a doublon sea. *Nature Physics* 11, 316-320 (2015).

DEPARTMENT OF RELIGION AND PHILOSOPHY

GEOFFREY F. BARSTOW, Assistant Professor

Presentations and Posters

"The Difficulty of Compassion: Buddhism and Vegetarianism in Pre-Modern Tibet" paper presented at the Minding Animals Conference, Jawaharlal Nehru University, New Delhi, India, January 13-20, 2015.

STEPHANIE L. PATRIDGE, Associate Professor

Presentations and Posters

"The Funny, Disgusting and the Outrageous: A Comparative Analysis of Fitting-Attitude Theories," American Society for Aesthetics: Annual Meeting, San Antonio, TX. 2014.

"Amusement, the Funny, and the Virtue of Wit," American Society for Aesthetics: Rocky Mountain Division, Santa Fe, NM. 2014.

"On the Normativity of Amusement," American Society for Aesthetics: Pacific Division, Pacific Grove, CA. 2014.

DEPARTMENT OF SOCIOLOGY AND ANTHROPOLOGY

DANIELLE E. DOCKA-FILIPEK, Assistant Professor

Presentations and Posters

"Gender, Pleasure, and Entitlement: The Orgasm Gap in College Hookups and Relationships." Presentation given at Otterbein University's Integrative Studies Symposium, Westerville, OH (with Elizabeth Casto). March 11, 2015.

"Just You Wait Until Your Heavenly Father Gets Home!" Family and Gender in Rhetoric and Practice at Two Faith-Based Mentoring Programs for Single Mothers." Paper presented at the Sociologists for Women in Society Winter Meetings, Washington Marriott Georgetown, Washington, DC (with Samuel Oakley). February 21, 2015.

"The Contemporary Family, Nuclear Norms, and Faith-Based Social Services: Lessons from the Field." Book project colloquium presented at James Madison University, Harrisonburg, VA. January 26, 2015.

DEPARTMENT OF THEATRE AND DANCE

MELISSA J. LUSHER, Associate Professor

Artistic Exhibits and Performances

Director, *The Greeks: The Murders*, Otterbein University, February 2015.

EXTERNAL GRANT AWARDS – Office of Sponsored Programs

Otterbein faculty and administrators have received grants totaling **\$758,966** since April 1, 2014. Ranging widely from research to academic studies to community education, these grants support the mission of Otterbein, enhance faculty achievement and student learning, and strengthen social justice in the central Ohio community.

NATHANIEL TAGG, Associate Professor, Physics
National Science Foundation (\$45,366) to fund
“RUI: NEUTRINO EXPERIMENTS FY13-14” on April 1,
2014. A third year of funding is expected for this
grant. Dr. Tagg and two undergraduate
researchers will work at Fermilab in Chicago, IL to
study the MINOS+, MINERvA and MicroBooNE
experiments.

JILL McCULLOUGH, Assistant Director of Student
Wellness and Summer Conferences

JULIE SAKER, Associate Dean of Students
National Collegiate Athletic Association (\$30,000) to
fund “Cardinal Choices” for 3 years on April 17,
2014. Wellness education at Otterbein is a vital
part of the campus culture and impacts student
decision making. Yet despite continual updates
on alcohol education and Otterbein’s dry-campus
policy, the university’s Residence Life, Judicial
and Wellness departments continue to see
evidence of alcohol misuse. Cardinal Choices will
address this trend by establishing a multi-
dimensional program grounded in sound
educational practices and implemented by a
student network to send appropriate messages
to the campus community regarding the
potential dangers of alcohol use. The program is
designed to take full advantage of the fact that
Otterbein’s campus is small, and its students are
highly supportive of one another.

KATHRYN PLANK, Assistant Professor, Education

PAUL EISENSTEIN, Dean, School of Arts and Sciences
Council of Independent Colleges (\$16,650) to fund
the “Consortium for Online Humanities
Instruction” on April 28, 2014. CIC Consortium
for Online Humanities Instruction, a multi-year
project (2014–2016) aims to assess the
effectiveness and cost-savings potential of online
teaching and learning in the humanities at CIC
colleges and universities. The Consortium has
three goals: 1) to explore how online humanities
instruction can improve student learning
outcomes; 2) to determine whether smaller,
independent liberal arts institutions can make
more effective use of their instructional
resources and reduce costs through online

humanities instruction; and 3) to provide an
opportunity for CIC member institutions to build
their capacity for online humanities instruction
and share their successes with other liberal arts
colleges. Professors Margaret Koehler (English)
and Jonathan DeCoster (History) are designing
and teaching the curriculum.

DEAN JOHNSTON, Professor, Chemistry

CARRIGAN HAYES, Assistant Professor, Chemistry

STEPHANIE GNEWUCH, Undergraduate Student

National Institute of Standards and Technology
(\$8,685) to fund a NIST Summer Undergraduate
Research Fellowship received on May 9, 2014.
This fellowship program provides research
opportunities for outstanding undergraduate
students to collaborate with internationally
known NIST scientists, to expose them to cutting-
edge research, and to promote the pursuit of
graduate degrees in science and engineering.
Otterbein student Stephanie Gnewuch will spend
11 weeks at the MML/NCNR -Material
Measurement Laboratory/NIST Center for
Neutron Research.

SUSAN CONSTABLE, Associate Professor, Education

U.S. Department of Education (\$378,127) to fund the
third year of the “Central Ohio English Learner
Education Collaboration” on May 21, 2014. There
are two more years of funding expected for this
grant. The Central Ohio English Learner Education
Collaborative (COELEC) unites key central Ohio
community organizations, k-12 schools and
Otterbein University to provide effective
programs to enrich the lives of English Learners
through education. COELEC has three major
goals: To better prepare 90 current classroom
teachers, especially those who teach grades 6
through 12, to provide quality instructional
support to English Language Learners; to better
prepare all Otterbein teacher education students
to support English Language Learners in k-12
classrooms; and 3) to provide opportunities
through financial support for 30 local English
Language Learners to earn a paraprofessional or
teaching license.

JAQUELINE HAVERKAMP, Assistant Professor, Nursing *Health Resources and Services Administration* (\$119,105) to fund the “Nurse Faculty Loan Program” on June 16, 2014. The nursing program at Otterbein University provides graduate education to licensed registered nurses (RN) to assume roles as clinicians, educators, researchers and administrators. The curricula of the Master’s of Science in Nursing Family Nurse Practitioner (FNP), or Clinical Nurse Leader (CNL) and the Doctor of Nursing Practice (DNP) prepares students to assume leadership roles through knowledge of scientific principles, theoretical frameworks, evidence based practice and health policy in order to provide high quality, safe and effective nursing care. These advanced nursing roles also provide an excellent foundation for educating future generations of nursing professionals. In addition, nurse educator specific courses using a framework of an Academic-Clinical Ladder are available. The framework of the Academic-Clinical Ladder is a planned progression of immersive teaching opportunities including psychomotor skills teaching, clinical teaching, blended or online and teaching in the classroom. It is anticipated that 10% of the enrolled graduate students will participate in the Nurse Faculty Loan Program (NFLP) with a goal of becoming a nurse educator.

BRIAN GARRETT, Director, Nurse Anesthesia Program *Health Resources and Services Administration* (\$20,740) to fund Otterbein’s “Nurse Anesthetist Traineeship” program on June 16, 2014. The purpose of this project is to increase the numbers of certified registered nurse anesthetists (CRNAs) in central Ohio and rural Ohio Appalachia. Before this program began at Otterbein in 2010, there had not been a nurse anesthesia program in Central Ohio since 1987. This award will be used to 1) fund graduate nurse anesthesia students past their first 12 months of study, and 2) financially support minority and underprivileged nurse anesthesia students past their first 12 months of study.

KAREN STEIGMAN, Associate Professor, English *National Collegiate Honors Council* (\$2,000) to fund the Otterbein University Honors Thesis Project on July 3, 2014. The Honors Thesis Project is a two-year independent research or creative work. Students begin work on projects in the junior year, when they enroll in the Junior Honors

Seminar (HNRS 3500) to choose a topic, select a faculty advisor, and develop a proposal and research plan, subject to approval of the Honors Advisory Committee. The Junior Honors Seminar is an interdisciplinary and highly interactive seminar which enrolls students from across the disciplines. Preliminary independent research on projects begins in the latter half of the junior year. During the senior year students register for four thesis independent thesis credits (HNRS 4500) and complete projects under the direction of their faculty advisor. Projects are completed in spring of senior year.

MELISSA GILBERT, Associate Dean for Experiential Learning/Director, Center for Community Engagement *The Women’s Fund of Central Ohio* (\$20,000) to fund the Otterbein Women’s Leadership Network on December 18, 2014. Known in the community as “The NET,” this program provides a stream of educational, networking, and transformational leadership opportunities for girls, university students, and women community leaders. We will mobilize over 500 participants and 55 organizations in our network through intergenerational opportunities. NET participants will develop a deeper understanding of how to navigate obstacles to their success while cultivating specific leadership skills necessary for their futures.

City of Columbus, The Columbus Foundation (\$4,000), and *Franklin County* (\$4,000) to support the Otterbein Community Garden. The garden is a shared living learning landscape with a mission to enrich the lives of local community member facing food insecurity while providing educational opportunities for youth and university students. The garden demonstrates Otterbein’s commitment to responsible and efficient land use, with the goal of ameliorating local hunger in Franklin County. Produce from the garden will benefit four Columbus Metropolitan Area food pantries. The garden also provides an avenue for self-empowerment for many of our garden participants who are at-risk for hunger themselves. With garden groups ranging from senior citizen living communities to elementary school youth, the garden is also a dynamic, inter-generational space that builds our community’s food capacities through shared goals for the common good.

WENDY SHERMAN HECKLER, Associate Vice President for Academic Affairs and Dean of University Programs/Professor in Education

DAVID ROBERTSON, Associate Professor, Physics
Ohio Board of Regents (\$108,793) to fund OP2: Operation Physics for Central Ohio Middle School Teachers on January 16, 2015. This project will develop an understanding of basic physics among teachers of students in grades 4-9. Teachers will enroll in 9 quarter credit hours (5 semester hours) of graduate coursework through Otterbein University that will provide them with sequences of inquiry activities, demonstrations, readings, and outside projects to be completed with their students. Teachers will learn to recognize and challenge some naive ideas in order to inspire student interest in physics concepts, encourage problem-solving, and improve student learning in areas of physical science specified in Ohio's

Academic Content Standards. Teacher participants will receive approximately 90-100 hours of instruction between the summer of 2015 and spring of 2016.

JUDY GUION-UTSLER, Chaplain

LEE ANNE BOWERS, Director of Health Services
Ohio College Health Association (\$1,500) to support training of Peer Advocates and Faculty to support students who are survivors of sexual violence on Feb 25, 2015. Our purpose, in seeking this grant, is to provide high quality training in trauma informed support for survivors of sexual violence. This grant will be used to hire Natalie Spiert, the Sexual Trauma Support Coordinator for the Student Advocacy Center at Ohio State University, for two six-hour training seminars, one for Peer Advocates and another for select faculty.

CENTER FOR COMMUNITY ENGAGEMENT

Awards and Honors

The 2014 President's Higher Education Community Service Award. Finalist, Economic Opportunity. General Community Service with Distinction. Education with Distinction.

The 2015 Carnegie Community Engagement Classification. The classification is recognition of exemplary collaboration between institutions of higher education and their larger communities.

External Grants

MELISSA K. GILBERT, Center for Community Engagement
The Women's Fund of Central Ohio: The Otterbein Women's Leadership Network. Known in the community as "The NET," this initiative provides a stream of educational, networking, and transformational leadership opportunities for girls, university students, and women community leaders. \$20,000

LESLIE CAVIN AND MELISSA GILBERT, Center for Community Engagement
Franklin County and the City of Columbus Community Garden Grants: The Otterbein Community Garden. Engages Otterbein students, faculty, and staff at this civic ecology learning landscape, giving garden, and community gathering space. \$4000

PATRICIA WILSON, Health and Sport Sciences
State Farm Insurance Company: Fit for Success. \$1500

MELISSA GILBERT AND LESLIE CAVIN, Center for Community Engagement
Scott's Miracle Grow: The Otterbein Community Garden. Cultivates an outdoor learning landscape for service-learning and the amelioration of food insecurity. \$1500 in Scott's product

LESLIE CAVIN, Center for Community Engagement
Commission on Service & Volunteerism: Make a Difference Day Grant. To host a Fall Harvest Festival for under-resourced families at the Community Garden, including a free farmer's market for pantry clients. \$1000

Community Engagement Mini-Grants for Social Justice Lectures

MIRANDA HALLET, FACES. "Faith in Action with El Salvador."

Scholarship of Community Engagement

MELISSA K. GILBERT, Associate Dean Experiential Learning/Director, Center for Community
Civic Ecotones: Cultivating Interdependent Partnerships. November 19, 2014. Keynote Address. Kentucky Engagement Conference. Morehead State University. Morehead: Kentucky.

Teaching Toward Agency: Service-Learning 101. November 20, 2014. Workshop. Kentucky Engagement Conference. Morehead State University. Morehead: Kentucky.

The Scholarship of [Community] Engagement. November 20, 2014. Presentation. Kentucky Engagement Conference. Morehead State University. Morehead: Kentucky.

LESLIE CAVIN, Assistant Director, Center for Community Engagement
w/Melissa Gilbert & Erica Phillips. *Cultivating Experiential Learning Across and Beyond Campus: The Otterbein Community Garden as a Hunger Learning Laboratory*. September 27, 2014. The First Annual Ohio Hunger Dialogue. Walsh University. North Canton: Ohio.

Community-Based Research

Vernon L. Pack Society for Community-Based Research

(Provides funding for students working with a Faculty Fellow on a student-designed community-based research project)

Faculty Fellows

ALLEN PRINDLE, Business, Account and Economics
w/Student Fellow Ryan Thombs, "Impact of LEED (Leadership in Energy and Environmental Design) on Student Performance in Ohio." Central Ohio Chapter of the United States Green Building Society.

ANNA YOUNG, Biology
w/Student Fellow Rachel Dalton, "Assessment of Trends in the Occurrences of Diseases in Central Ohio Wildlife." Ohio Wildlife Center.

ANNE-CATHERINE SULLIVAN, Health and Sports Sciences
PATTI WILSON, Health and Sports Sciences
w/Student Fellow Kari Shank, "Empowerment Theory and Best of Both Worlds." Best of Both Worlds.

DIANE NANCE, Office of Sponsored Programs
w/Student Fellow Sean Brewster, "Central Ohio Symphony Research Project." Westerville Symphony & Columbus Symphony.

SABBATICAL ABSTRACTS AND PROJECTED OUTCOMES

Academic Year 2015-16 Projects

ACKER, MICHELE (Psychology, spring 2016) First, Acker will write a manuscript based on her research on gender bias in STEM women. Second, she will re-familiarize herself with several research literatures. She will consolidate her work on gender bias with her past research on relationships, and integrate a cross-cultural emphasis in studies to be conducted post-sabbatical.

ARISTOTELOUS, KYRIACOS (Business, Accounting, and Economics, fall 2015) During his sabbatical, Aristotelous will work on a manuscript that will be submitted for publication. The proposed project will contribute to the policy debate over economic growth and air pollution by investigating whether an N-shaped relationship exists between per capita real income and carbon dioxide emissions per capita.

BUTZ, SUSAN (Nursing, spring 2016) During her sabbatical, Butz intends to: 1) write the Ohio Board of Nursing accreditation report; 2) present/attend the American Association of Critical-Care Nurses National Teaching & Critical Care Symposium to maintain certification; and 3) create oral health content and lab skills for the current NURS 6510/6520 nurse practitioner courses.

CAPTEIN, LOUISE (Art, spring 2016) During her sabbatical Captein will further her creative practice in her professional areas of painting and paper collage. She will create series of new abstract paintings and collages. She will also explore extending her work in collage to surface design by making sample patterns for textiles.

FISCHER, KIM (Health and Sport Sciences, fall 2015) Fischer's sabbatical leave will be spent revising course work and sequencing of courses in the Health Promotion and Fitness major, revising the OtterFit Faculty and Staff Health and Fitness Program, and securing a professional health coach certification.

FRICK, PATRICIA (English, fall 2015) Frick's sabbatical will advance two primary goals: 1) the completion of two scholarly essays on the Victorian novelist Wilkie Collins for publication

and presentation, and 2) the creation of a new course for the English Department, "Haunted Empire: Ghosts and the Victorian Imagination."

HAYES, CARRIGAN (Chemistry, fall 2015) Monocyclic oxygenates are compounds used to better understand the combustion and atmospheric reactions of lignocellulosic biofuels. Hayes will investigate reaction pathways of the monocyclic oxygenates via computational chemistry methods, building on work completed over the past few years with Otterbein students and developing future projects feasible for undergraduate researchers.

HUANG, ZHEN (Mathematical Sciences, spring 2016) *Predictive Modeling* techniques extract information from data to predict future trends. The goals of Huang's leave are to learn recently developed predictive modeling techniques and their real-world applications, conduct research on predictive modeling in insurance and financial services, and write a publishable paper on applying predictive modeling in actuarial science.

JOHNSON, JONATHAN (Art, fall 2015) During Johnson's sabbatical leave he will create a suite of related photographs, artist books and experimental narrative films under the title "Mapping and Confluence" (working title) that consider Thailand as a site to contemplate multi-faceted social, natural and personal histories and how they intersect with global and local conditions.

KEANE, PATRICIA (Nursing, fall 2015) This sabbatical has four foci: 1) Conducting research investigating nurse practitioners' knowledge about screening for osteoporosis; 2) Submitting this research for publication; 3) Presenting at the World Congress on Osteoporosis, Osteoarthritis and Musculoskeletal Disease; 4) Assisting in preparing for the Commission on Collegiate Nursing Education accreditation visit in November, 2015.

LAWRANCE, SIMON (Biology and Earth Science, spring 2016) The activities in the proposal involve primary research exploring as yet unidentified genetic variation and interpreting the data with respect to *ex situ* breeding, MHC gene evolution,

disease susceptibility & resistance (especially with respect to avian malaria) and the biogeographic distribution of MHC gene variation in wild populations. The research will employ biotechnologies such as polymerase chain reaction and DNA sequencing characteristic of scholarly endeavor in the discipline.

LEVIN, MICHAEL (Business, Accounting & Economics, fall 2015) The purpose of Levin's sabbatical is to promote teaching innovations that he has created and implemented. These innovations cover a variety of courses. Through his sabbatical, he will present the teaching innovations to receive feedback from colleagues as he prepares them for submission to academic journals.

MANDEVILLE, BRUCE (Equine Science, fall 2015) Mandeville will write a publishable manuscript entitled "Police horse use: challenges and benefits", from interviews, visits, and data collection in four major cities through collaboration with The North American Mounted Unit Commanders' Association (NMUCA). Mandeville will also develop a second manuscript comparing horse-drawn carriage legislation in these same cities.

NENCIU, ADRIANA (Mathematical Sciences, fall 2015) Groups are mathematical objects used to describe symmetry. The character table of a finite group has applications in physics, coding theory, crystallography, and chemistry. Nenciu's sabbatical research will lead to important advances in understanding character tables of finite. This research will be published in a peer-

PATRIDGE, STEPHANIE (Religion and Philosophy, fall 2015) Fitting-attitude theories analyze evaluative properties in terms of whether or not they provide a sufficient reason of right kind to experience an associated sentiment. We compare the funny, the disgusting, and the outrageous and argue that the outrageous is a fitting-attitude property, but disgust and the funny are not.

REIS, LEVILSON (Modern Languages and Cultures, spring 2016) This sabbatical project examines the concept of otherness, as it manifests itself across different media (art, literature, and film), through the lens of diverse disciplines to produce a textbook, containing an introduction, thematic

units, learning activities, and contexts for further discussion and prompts for writing.

RIBAR, ALICIA (Nursing, fall 2015) The proposal includes attendance at the Nurse Practitioner Health Policy Summit to increase awareness of issues impacting nurse practitioner practice and research. Also research investigating the knowledge of nurse practitioners' osteoporosis screening methods, resulting in a publishable article and submission for presentation at an international conference will be completed.

ROBINSON, KAREN (Education, spring 2016) As a teacher educator, Robinson will use and improve skills in the teaching of literacy and social studies methods in two schools: one, Darbydale Elementary in South Western City Schools, OH, and two, one of the Chinese schools in Guangzhou where our students have the option to student teach.

ROSE, LOUIS (History and Political Science, fall 2015) Rose's project includes research and publication of historical material from psychoanalytic archives in New York and the Library of Congress, Washington, D.C. and the completion of final revisions on his book manuscript *Psychology, Art, and Antifascism: Ernst Kris, E.H. Gombrich, and the Politics of Caricature*.

SCHECKELHOFF, CARRIE (Education, fall 2015) Scheckelhoff will conduct ethnographic research on the use of touchpads (iPad apps) in a high-need Kindergarten to support alphabetic principle. The project will result in submission of a research article, presentation proposal, and department seminar. This project will include revision of three education course syllabi to include iPad app teaching/learning modules.

SMITH, CHARLES (Business, Accounting & Economics, spring 2016) Smith has applied for and hope to receive a teaching/research Fulbright Fellowship at the University of Split in Croatia for the spring 2016 term. This will require that he live and teach in the Split, Croatia for a three to four month period. The Fulbright Program is administered by the Council for International Exchange of Scholars, a unit of the US Information Agency.

TONG, ZENGXIANG (Mathematical Sciences, fall 2015)

Tong's goal is to explore, discover, prove, and publish a new technique, called Area Methods, in geometry proofs, and a new geometry structure, called Integrated Trig-Geometry, which will improve his practices in teaching Advanced Geometry and help students to learn geometry and trigonometry more effectively.

WARREN, HILLARY (Communication, spring 2016)

In response to colleague retirements and the prioritization of academic programs, Warren plans to return to teaching research methods in the communication core. As she completed her Ph.D. more than 15 years ago, her sabbatical will be spent updating her statistical analysis skills and re-engaging with the current research dialogue.

WEISS, ADELE (Education, fall 2015)

The purpose of the project is to understand the ways in which intervention specialists and regular classroom teachers co-teach to implement the Ohio

Extended Standards with children identified as having moderate to intensive special needs. Proposed study outcomes include presentations at professional venues and a published article.

WU, JANE (Library, fall 2015) This research seeks to identify gaps in the incoming Chinese students' past library experience, their information literacy skills, and the education received before coming to the United States. It will result in a presentation/published article and will lead to the development of a culturally-responsive information literacy orientation program at Otterbein.

YONCHAK, MICHAEL (Music, fall 2015) The Yellow Shark (1993) is an album that represents the pinnacle of Frank Zappa as a composer and record producer. Anticipating a Spring 2015 proposal call for an ongoing book series, Yonchak will submit a manuscript to add Zappa's Yellow Shark to this collection of titles.

FACULTY SCHOLAR DEVELOPMENT COMMITTEE GRANTS

GEOFF BARSTOW, Assistant Professor, Religion and Philosophy

Research on Tibetan Vegetarianism in Nepal

For two weeks in January, Barstow will conduct research on vegetarianism among Tibetan Buddhists in Kathmandu, Nepal. During that time, he will visit monastic libraries seeking new textual sources, conduct interviews with lamas and laypeople and review difficult passages in texts already collected.

JENNIFER BENNETT, Assistant Professor, Biology and Earth Science

Gene Expression Studies of Cyclic di-GMP Signaling Pathways in a Pharmacologically Important Bacterium

RNA-seq is a new method for analyzing global gene expression. Real Time PCR is a technique used to validate data for individual genes identified using RNA-seq. Her laboratory has begun to learn RNA-seq and has now learned how to effectively perform the complex workflow through the cDNA library preparation. Bennett would like to advance her knowledge about RNA-seq by successfully submitting a prepared library for this

new Next Gen Sequencing technique and learn how to complete the data analysis using bioinformatics tools. Simultaneously, she would like to continue using Real Time PCR, the gold standard for analyzing gene expression of one to a few genes at a time. Her laboratory students have successfully run Real Time PCR experiments this semester and obtained data that identifies the first target genes to be discovered in the *Streptomyces* signaling pathways that we study. This proposal requests funds to advance RNA-seq experimentation conducted in her laboratory and continue to use Real Time PCR in experiments to confirm suspected genes of interest. Knowledge acquired will be used in my bioinformatics course to teach the cutting edge Next Gen Sequencing Techniques, including RNA-seq, and to provide research projects for undergraduate students.

RNA-seq Analysis of a Cyclic di-GMP Mutant for the Potato Pathogen, Streptomyces scabies

The proposed research will examine the global gene expression patterns for a wild-type ("normal") strain and a mutant strain of the prevalent, persistent agricultural pest, *Streptomyces*

scabies. *S. scabies* is a bacterium that causes the disease Common Scab in potatoes and other root crops, resulting in scab-like lesions on the outside of these vegetables. The comparison of gene expression profiles between the wild-type and mutant strains of *S. scabies* using the Next Generation Sequencing technique called RNA seq will identify which of the over 7,000 genes of *S. scabies* are regulated by cyclic di-GMP signaling. The project is expected to identify cyclic di-GMP-regulated genes that are involved in a variety of processes, including the disease process. Regulatory pathways that are found in *S. scabies* are likely to be present in the seven other *Streptomyces* potato pathogens as well as the two *Streptomyces* human pathogens.

SARAH BOUCHARD, Associate Professor, Biology and Earth Science

Nutritional Ecology of Neotropical Frogs at the Smithsonian Tropical Research Institute in Panama

The nutritional strategies of animals have important implications for the evolution of life history traits. Physiologically, nutritional strategies involve tradeoffs between diet intake, digestibility and transit time through the gut. The goal of this project is to describe and understand the nutritional strategies adopted by red-eyed treefrog tadpoles under different levels of competition and predation risk. Bouchard will raise tadpoles in controlled environments and measure effects on growth rate, intake, diet transit time, metabolism, and gut morphology. These studies will improve our mechanistic understanding of the role digestive plasticity (= flexibility) plays in tadpole nutritional ecology.

STEFFANIE BURK, Assistant Professor, Equine Science

COLLABORATORS: JEFFREY LEHMAN, Biology and **SHERI BIRMINGHAM**, Equine Science

Analysis of Salivary Cortisol Levels and Cyathostome Fecal Egg Counts in Horses

Cyathostomes are responsible for more equine health issues than any other parasite. These parasites commonly infect adult horses, though some horses consistently shed higher numbers of eggs within their feces than others. Several factors have been associated with egg shedding levels, including manure and pasture management practices, horse age, and anthelmintic treatments. We hypothesize that elevated cortisol levels, which are known to

suppress immune cells, are associated with high egg shedding levels. The objective of this study is to determine if there is an association between salivary cortisol levels and cyathostome egg shedding levels in horses, while controlling statistically for possible confounding factors.

JONATHON DECOSTER, Assistant Professor, History and Political Science

Florida: England's First Overseas Colony

Jamestown, Virginia, established in 1607, is widely recognized as England's first permanent colony in the Americas. Most colonial historians would recognize that Virginia's antecedents lay in Sir Walter Raleigh's failed Roanoke experiment of the 1580s. DeCoster argues, however, that English overseas colonization actually began over two decades earlier, when Queen Elizabeth authorized Thomas Stukeley to seize a French colony in Florida. Though Stukeley never completed the mission, this little-known expedition had an underappreciated influence on subsequent English colonialism. DeCoster's trip to London will allow him to research Stukeley's Florida venture and its relationship to later colonial projects.

TERRY HERMSEN, Associate Professor, English
Assistance in Translation

During the summer and fall of 2014, Hermesen will be finishing up a major task: translating Chilean poet Christian Formoso's book *El Cementerio Más Hermoso de Chile*. To help with making this translation as accurate and effective as possible, he applied for FSDC funds to travel to the SUNY-Stony Brook to meet with the author (who is undertaking his dissertation there), spending approximately three days to consult on the manuscript, and taking his suggestions into account as Hermesen polishes a final draft before submitting it to publishers.

NICHOLAS HILL, Professor, Art

"The Kyoto and Tokyo Projects, a solo exhibition at Miami University"

Hill will exhibit a body of works on paper based upon travel in and research about Japan and Japanese printmaking in a solo exhibition at Miami University's Hiestand Galleries in Oxford, Ohio. The work will employ traditional and contemporary printmaking processes. The exhibition will run from February 18 through March 11, 2015. It will be complemented by two

or more gallery lectures for art professionals and students.

JONATHAN JOHNSON, Assistant Professor, Art
Mapping Confluence

"Mapping Confluence" is a new short essay film that considers Thailand as a site to contemplate multi-faceted social, natural and personal histories and how they intersect with global and local conditions.

JEAN KELLY, Associate Professor, Communication
Interactive Book Development & Testing

This grant would allow Kelly to continue previous scholarship of teaching and learning by refining and implementing changes to a 10-page, interactive e-book chapter she authored and designed during her Spring 2014 sabbatical. The monies would allow Kelly to hire an instructional designer to help her make it a suitable instrument for a quasi-experimental project to be conducted Spring 2015, to add additional functionality identified in early focus group research with students in classes where she will use it to teach modular layout and design, and to distribute and market the chapter to students via the Apple App Store.

HAL LESCINSKY, Professor, Biology and Earth Science
*Population Stressors of staghorn coral (*Acropora cervicornis*) in Central Belize*

Acropora cervicornis (staghorn coral) was the principle shallow water branching coral throughout the Caribbean until white band disease decimated it in the 1980s. The coral is now recognized as a federally threatened species but it is beginning to make a come back in Belize. Colony growth, however, is limited locally by ecological factors including damsel fish biting, fire worm predation, algal overgrowth, snail predation, disease. This project will quantify the extent of the resurgence and the local impact of various stressors on *Acropora* colonies on patch reefs that we have been monitoring since 2006 in the SouthWater Cay Marine Reserve.

Spectral Analysis of high Resolution Satellite Image to Locate Endangered Corals in Belize

Acropora cervicornis (staghorn coral) was the principle shallow water branching coral throughout the Caribbean until white band disease decimated it in the 1980s. The coral is

now recognized as a federally threatened species but it is beginning to make a come back in Belize. This project will use spectral analysis of a high resolution satellite image in the SouthWater Cay Marine Reserve to identify possible large stands of *A. cervicornis*. These sites will then be visited in the field and mapped to allow future patterns of coral resurgence to be documented and quantified.

AARON REINHARD, Assistant Professor, Physics
Magneto-Optical Trap for the Study of Cold Rydberg Atom Interactions

Reinhard's student collaborators and he will construct a magneto-optical trap to capture ground state rubidium atoms from a low pressure vapor and cool them to temperatures of order 100 micro Kelvin. We will thoroughly characterize the parameters of the trapped atom cloud, including temperature, density, and atom number. The magneto-optical trap will form the basis of future experiments on the interactions among ultracold Rydberg atoms. Specifically, we will study the processes which reduce the efficiency of the "Rydberg excitation blockade," a phenomenon where strong atom-atom interactions lead to a suppression of laser excitation. Our work will have applications in neutral atom quantum computation.

DENISE SHIVELY, Senior Instructor, Communication
Implementing Mentor Relationships with Students in International Travel Courses

Building on the work investigating the possibility for student mentorship opportunities in international travel, this project will implement having senior students mentor first-year students in an international travel experience to Malawi, Africa, in May 2015, allowing for exploration into the scholarship of teaching and learning in this experiential setting and the development of "best practices" to be used in the future.

FACULTY COLLABORATIVE INTERNATIONAL GRANT

JANICE GLOWSKI, Gallery and Museum Director

JONATHAN JOHNSON, Assistant Professor, Art

SHANNON LAKANEN, Associate Professor, English

*Exploring Implicit Bias and Global Citizenship through
the Arts of Thailand*

The main goal of this project is to examine implicit bias through the lenses of the arts and creative processes, including visual creative processes (film & photography), the study of visual culture

(art history/exhibitions), and creative writing (nonfiction & poetry). By traveling to several diverse sites in Thailand, we aim to strengthen and establish collaborations, create learning and cultural experiences for Otterbein students, and ultimately develop a travel course that immerses students into non-Western culture to expand their worldview.