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### Faculty Achievements, April 2016

Otterbein University

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Otterbein University, "Faculty Achievements, April 2016" (2016). *Faculty Achievement Reports*. 11.  
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## Faculty Achievements, Spring 2016

### OFFICE OF ACADEMIC AFFAIRS

**BARBARA H. SCHAFFNER**, Dean of the School of Professional Studies and The Graduate School/Professor, Department of Nursing  
*Books, Book Chapters, and Journal Articles (peer reviewed)*

Hatter-Fisher, D.Y., Harper, W., and Schaffner, B. (2015). "Promoting Hypertension: Outcomes of an Academic-Urban Community Project Collaboration," *The Negro Educational Review*, 66(1-4), 69.

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

#### *Presentations and Posters*

Sherman Heckler, W., and Reichley, K. (2016, April). *Our comprehensive evaluation visit by the numbers: Institutional Impact at Otterbein*. Presentation ("Open Pathway Elective") given at the pre-conference Accreditation Workshop at the Annual Conference of the Higher Learning Commission, Chicago, IL.

### DEPARTMENT OF ART

**NICHOLAS A. HILL**, Professor

#### *Artistic Exhibits and Performances*

"Los Estaciones," group print exhibition, Galería de Arte, Temuco, Chile, March 4-31, 2016.

"Justice!" One of fourteen American printmakers selected by a national juried process to create prints addressing the theme of justice to accompany a university-wide symposium on the theme, Fine Art Center, St. Ambrose University, Davenport, IA, March 4-April 16, 2016.

#### *Community Outreach/Service Learning*

Regional juror for the Ohio Governor's Art Exhibition, February 2016.

Art critic for high school drawing classes, Big Walnut High School, February 2016.

#### *Honors and Awards*

Awarded a one-month artist residency, The Art Student League of New York Residency at

Vytlacil, a national juried residency process. The residency includes studio and living spaces as well as opportunities for individual critiques with noted New York artists.

#### *Presentations and Posters*

Gallery talk presented to art faculty and students at Pratt Munson Williams Proctor College of Art and Design Gallery, Utica, NY, January 22, 2016.

### DEPARTMENT OF BIOLOGY AND EARTH SCIENCE

**KEVIN D. SVITANA**, Associate Professor

#### *Presentations and Posters*

Svitana, K. "Using Brownfields in a General Education Teaching Format at Otterbein University," Ohio Brownfield Conference 2016, April 7, 2016, Columbus, OH.

### DEPARTMENT OF CHEMISTRY

**JOAN M. ESSON**, Associate Professor

#### *Presentations and Posters*

Esson, J. M., Plank, K. M., Wendel, P. J., Young, A. (2016, March 17). A study of evidence-based practices at a U. S. university: Lessons for faculty development. Paper presented at the Fifth Edition of the New Perspectives in Science Education International Conference, Florence, Italy.

Young, A., Wendel, P. J., Esson, J. M., Plank, K. M. (2016, March 18). Motivational decline in higher education STEM courses and its association with student demographics. Paper presented at the Fifth Edition of the New Perspectives in Science Education International Conference, Florence, Italy.

Wendel, P. J., Young, A. M., Esson, J. M., Plank, K. M. (2016, April 14-17) Four-Paper Set: Data for reform: A comprehensive examination of introductory STEM teaching, learning, and persistence at a primarily undergraduate institution. Paper 1: Evidence-based practices at a primarily undergraduate institution: STEM faculty awareness and implementation. Paper 2: Conceptual gains in STEM at a primarily undergraduate institution: A cross-

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departmental evaluation. Paper 3: Motivational decline in STEM at a primarily undergraduate institution. Paper 4: Persistence in STEM at a primarily undergraduate institution: Student characteristics and experiences. Paper set presented at the National Association for Research in Science Teaching (NARST) International Conference, Baltimore, MD.

Esson, J. M., Young, A., Plank, K. M., Wendel, P. J. (2016, April 27) Opening Doors: A WIDER Examination of STEM Teaching and Learning, Culture and Support at Otterbein University. Paper presented at the National Science Foundation Symposium Envisioning the Future of Undergraduate STEM Education: Research and Practice, Washington, DC.

Wendel, P.J., Young, A.M., Plank, K. M., Esson, J.M. (2016 May). Introductory STEM Teaching, Learning and Culture: Data for Self-Evaluation, OH-PKAL Increasing STEM Success in Higher Education Conference, Westerville, OH.

### *Service/Leadership in the Profession*

Elected Councilor to the Columbus Section of the American Chemical Society (three-year term).

## DEPARTMENT OF COMMUNICATION

**DANIEL J. STEINBERG**, Instructor

### *Teaching Innovations*

Coordinated travel with public relations students to Washington, D.C. to observe a White House West Wing news conference with national news correspondents, arranged meetings with President Obama's press secretary Josh Earnest, Ohio Senator Sherrod Brown, NBC national news correspondent, and with PR staff from the Library of Congress and the Pentagon. Students also received "insider tours" of the locations visited.

## DEPARTMENT OF EDUCATION

**PAUL J. WENDEL**, Assistant Professor

### *Presentations and Posters*

Wendel, P. J., Ramasamy, S., Conrad, M., Svitana, K. (2016, February 17). Shale gas drilling and groundwater quality in Tioga County, Pennsylvania. Presentation at the Northcentral Pennsylvania Conservancy, Mansfield, PA.

Wendel, P. J., Svitana, K. (2016, February 18). Science in the public interest: Scientists' public responsibilities. Presentation to the Mansfield University Honors Program, Mansfield, PA.

Esson, J. M., Plank, K. M., Wendel, P. J., Young, A. (2016, March 17). A study of evidence-based practices at a U. S. university: Lessons for faculty development. Paper presented at the Fifth Edition of the New Perspectives in Science Education International Conference, Florence, Italy.

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Research in Science Teaching (NARST)  
International Conference, Baltimore, MD.

### DEPARTMENT OF EQUINE SCIENCE

**BRUCE G. MANDEVILLE**, Assistant Professor  
*Books, Book Chapters, and Journal Articles (peer reviewed)*

"Equine Liability Statutes: Are the Courts Moving in the Wrong Direction?" published in Volume XII of *The Journal of Animal and Natural Resource Law* (JANRL). *The Journal of Animal and Natural Resource Law* is one of only three journals nationally that is devoted to animal law topics and is a premier resource for animal law and natural resource law scholars and practitioners nationwide.

### DEPARTMENT OF HEALTH AND SPORT SCIENCES

**ROBERT E. BRAUN**, Assistant Professor  
*Presentations and Posters*

Braun, R., and Barrueta, M. "Infrastructure Inequality-A Conceptual Framework for the Elimination of Health Disparities." Poster Presentation at the 9<sup>th</sup> Annual Health Disparities Conference-From Disparity to Equity: Developing Healthier Communities, 2016.

Thornton, A., Seredick, G., and Braun, R. "Trends of Diabetics Using the BRFSS Data from 2008-2012 by Race/Ethnicity." Poster Presentation at the 9<sup>th</sup> Annual Health Disparities Conference-From Disparity to Equity: Developing Healthier Communities, 2016.

**KRISTY L. MCCRAY**, Assistant Professor  
*Presentations and Posters*

McCray, K. L. (2016, February). Title IX. Guest lecture for KNSISM 4411: College Sport at The Ohio State University, Columbus, OH.  
McCray, K. L. (2016, March). Race, Power, and Privilege in Sports: Athlete Activism. Presented at the Integrative Studies Symposium: Race, Power and Privilege, at Otterbein University, Westerville, OH.

McCray, K. L. (2016, March). Sexual Assault and College Athletics: An Overview of Student-Athlete Knowledge and Prevention Education. Guest speaker for KNSISM 7897: Colloquium in Sport Management at The Ohio State University, Columbus, OH.  
*Service/Leadership in the Profession*  
Member, Diversity Committee. North American Society for Sport Management, June 2015-present.

### DEPARTMENT OF HISTORY AND POLITICAL SCIENCE

**LA TRICE M. WASHINGTON**, Associate Professor  
*Service/Leadership in the Profession*  
Discussed political polarization in "Why Senator Lindsey Graham says a dislike for Obama is 'unhealthy'." Quoted in article that appeared and ran in The Christian Science Monitor and Yahoo! News.

Quoted in the article "Can Trump Win the Presidency Without the Hispanic Vote, Maybe" in The Christian Science Monitor.  
Appearance on MSNBC's live news broadcast "A Place for Politics" with Chris Jansing, March 8, 2016.

Political Commentator/Political Analyst for the African American TV station Bounce TV.  
Discussion topics included the presidential election, politics of the day, and addressed viewer questions.

### DEPARTMENT OF MUSIC

**GAYLE A. WALKER**, Professor

*Artistic Exhibits and Performances*

Conducted Otterbein University Concert Choir on March 2016 tour to Boston, including performances at: Hobart and William Smith Colleges, Geneva, NY; Cathedral of the Immaculate Conception, Albany, NY; Calvary United Methodist Church, Boston, MA; Grace Episcopal Church, Amherst, MA; and 1<sup>st</sup> Lutheran Church, Jamestown, NY.

*Publications and Essays (non-peer reviewed)*  
"Your Work Matters!" *Resound* 39, No. 3 (Spring 2016).

## Faculty Achievements, Spring 2016

### *Service/Leadership in the Profession*

ACDA Central Division Conference, Chicago, February 23-27, 2016. ACDA Central Division President, and Conference Chair-presided over the division conference, and implemented two years of planning work for the conference.

## DEPARTMENT OF NURSING

**KAY A. BALL**, Associate Professor

*Community Outreach/Service Learning*

Republican Central Committee (elected March 2016): Member.

Prison Ministry at Marion Correctional Institute.

*Honors and Awards*

2016 AORN (Association of periOperative Registered Nurses) Outstanding Achievement in Perioperative Education, Academia.

*Presentations and Posters*

Ball, K. (February 9, 2016). Implementing a Smoke-Free Operating Theatre. Perioperative Nurses of New Zealand. Wellington, New Zealand. Sponsored by Big Green.

Ball, K. (March 8, 2016). Hazards of Surgical Smoke. AORN of Indianapolis. Carmel, IN. Sponsored by Megadyne, Inc.

*Service/Leadership in the Profession*

International Council on Surgical Plume, Inc., Clinical Advisory Committee: Chairman.

Ohio Council for Perioperative Registered Nurses: Member, AORN of Central Ohio representative.

Association of periOperative Registered Nurses (AORN): Member, Past President.

AORN of Central Ohio: Board of Directors, Representative to Ohio Council for Perioperative.

Registered Nurses, Legislative Committee Chairman.

Ohio Nurses Association, Health Policy Council, Member.

Ohio Nurses Association, Dorothy Cornelius Congress: Member (inducted October 2015).

MidOhio District Nurses Association, Legislative Committee, Chairman.

American Society for Perianesthesia Nurses: Member.

**JOHN D. CHOVAN**, Assistant Professor

*Service/Leadership in the Profession*

Invited member, Advanced Practice Nurse Role Delineation Study Advisory Group, Hospice and Palliative Credentialing Center.

Invited member, Palliative and Hospice Nursing Professional Issues Panel Advisory Group, American Nurses Association.

**CHRISTINE M. ZAMARIPA**, Instructor

*Honors and Awards*

Prism Business Unit Award for Excellence. Team Lead for the Baby-friendly Team at Doctors Hospital, OhioHealth. Baby-friendly Designation was attained, November 2015.

## DEPARTMENT OF THEATRE AND DANCE

**TIMOTHY J. GERCKENS**, Assistant Professor

*Artistic Exhibits and Performances*

Lighting Design for *Is He Dead?* Directed by Mark Mineart, Otterbein University Theatre, February 2016.

Lighting Design for *Blood Wedding*. Directed by Daniel Ostling at the Lookingglass Theatre Company, Chicago, IL, March 2016.

## Faculty Achievements, Spring 2016

### EXTERNAL GRANT AWARDS - OFFICE OF GRANTS AND SPONSORED PROGRAMS

Otterbein faculty and administrators have received grants totaling \$123,868 since the winter update, bringing the total of grants received during this fiscal year to \$533,611. 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.

**PAUL EISENSTEIN**, Dean of the School of Arts and Sciences/Professor, Department of English  
Martin Holden Jennings Foundation.

*The Martin W. Essex School for the Gifted and Talented™ at Otterbein University.* (\$10,000)

The Martin W. Essex School for the Gifted and Talented™ offers rising high school juniors and seniors opportunities for career exploration through classes, seminars and workshops on the arts, sciences and humanities. Hosted on Otterbein's campus, this residential summer program encourages social interaction and peer discussion so that students can be challenged intellectually and artistically and develop a better understanding of their abilities, talents and leadership in their lives and in society. Otterbein will offer The Essex School for one week June 19 - 25, 2016, and will prioritize two needs for up to 40 of the state's gifted and talented students: 1) a secure and challenging learning environment designed for the intellectual and creative needs of gifted students, and 2) an experiential residential camp during which students are given the opportunity to socialize and learn from their peers.

**REV. JUDITH GUION-UTSLER**, Chaplain, Office of Student Affairs

The Ohio Foundation of Independent Colleges.

*Promoting Ongoing Conversations About Race and Privilege at Otterbein University.* (\$5,000)

Debbie Irving, a prominent white anti-racist, was the featured speaker for Otterbein's annual Martin Luther King, Jr. convocation. During the day's events, Irving facilitated conversations about race and privilege on campus with students from athletics, Greek life, student government and other student groups. Irving also presented a seminar for aspiring anti-racist activists and allies for social justice. Sixty copies of her book, *Waking Up White*, were distributed to students.

**DAVID ROBERTSON**, Associate Professor,  
Department of Physics

**WENDY SHERMAN HECKLER**, Associate Vice President for Academic Affairs/Dean of University Programs/Professor, Department of Education  
Ohio Department of Higher Education.

*Operation Physics (OP2) for Central Ohio Middle Grades Teachers 2016/17.* (\$108,868)

The goal of this project is to develop an understanding of basic physics among teachers of students in grades 4-9. Teachers enroll in five 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 learn to recognize and challenge some common, naïve ideas in order to inspire student interest in physics concepts, encourage problem-solving, and improve student learning in topics specified by Ohio's Model Science Curriculum for Physical Science grades 4-8, and the Physical Science High School course. Teacher participants will receive approximately 90-100 hours of face-to-face instruction between the summer of 2016 and the spring of 2017. The course is team-taught by one full-time academic administrator with faculty affiliation in the Education Department, one full-time associate professor of physics at Otterbein, and two full-time middle grades teachers (from Black River and Columbus City school districts) prepared to teach specific physical science units to peers and to provide current insights on student responses to inquiry activities.

SABBATICAL ABSTRACTS— ACADEMIC YEAR 2016-17 PROJECTS

**KAY BALL** (Nursing, fall 2016) Ball's book *Lasers: The Perioperative Challenge*, 3<sup>rd</sup> edition, was last published in 2004 and will be updated during this sabbatical. Since laser technology in healthcare is complex and continually developing, the 4<sup>th</sup> edition of this book will focus heavily on biophysics, systems, safety, and administrative aspects of a laser program.

**JENNIFER BENNETT** (Biology and Earth Science, fall 2016) Bennett's research during her sabbatical will advance the field of bacterial communication by further examining genes that her laboratory has discovered as important for controlling microbial development, antibiotic formation and infection. Experiments will be conducted by Otterbein students under her supervision, and completed research will be submitted for publication and presentation.

**TAMMY BIRK** (English, fall 2016) *Becoming Cosmopolitan: Critical Cosmopolitan Teaching and Learning* is a book project that outlines and recommends a critical cosmopolitan teaching and learning paradigm for higher education. Birk intends to outline this full-length text, draft two sample chapters, and submit a book proposal for publication with an academic press or series.

**PHYLLIS BURNS** (English, spring 2017) The focus of Burns' sabbatical project is African American literature. Her project researches the novel, *Black No More*; the play, *Day of Absence*; and the short story, "The Space Traders." This research lays foundation of an essay to be submitted to a peer-reviewed journal.

**RUTH CHAVEZ** (Nursing, spring 2017) The purpose of Chavez's sabbatical project is to increase opportunities for nursing students by developing additional cultural immersion

service learning experiences and to continue expansion of doctoral work on the Promotion of Personal Health and Wellness in the College Population through article development and submission.

**DANIEL CHO** (Education, spring 2017) Democracy in Education is an old idea. But it is currently in crisis. In this project, Cho will return to the roots of democratic theory with the intention of injecting fresh life into this notion by introducing it to contemporary theoretical developments. Cho hopes this work reinvigorates the field as well as his own teaching. The outcome of this project will be a paper publishable in a peer reviewed academic journal. A preliminary version of this paper will be presented at a spring conference during the sabbatical.

**BETH R. DAUGHERTY** (fall 2016) Daugherty will present at the 26<sup>th</sup> Annual International Conference on Virginia Woolf at the University of Leeds, visit several England archives to answer remaining research questions for her book project, and complete her book manuscript, *Virginia Woolf's Apprenticeship: The Education of a Woman Writer*, for submission to a publisher.

**JAMES GORMAN** (English, fall 2016) Through interviews with experts, scholarly reading and participatory research, Gorman will explore whether wilderness hiking wards off both physical and mental aging. He will write, and submit for publication, an essay about his investigations. Gorman's learning about wilderness hiking, aging and writing will enhance his teaching of a general-education, writing-intensive course, INST 1502: Reading and Writing the Road.

**MARCUS GREEN** (History and Political Science, fall 2016) Green aims to finish his incomplete book manuscript, "Gramsci and

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Subalternity," and submit it, along with a book prospectus, to academic and university presses for review. His sabbatical project will contribute to scholarly literature in political theory, cultural studies, and the specialty fields of Gramscian and subaltern studies.

**GLENNA JACKSON** (Religion and Philosophy, spring 2017) Jackson intends to travel to Jerusalem to research and to teach at St. George's College (an Anglican community of education, hospitality, pilgrimage, and reconciliation) as a Scholar-in-Residence in Jerusalem. She will write at least one article with the possibility of completing one or both book manuscripts already begun.

**ERIC JONES** (Communication, spring 2017) Jones' sabbatical will produce a research paper examining media portrayals of the rhetoric of Pennsylvania State Senator Roxanne Jones; a staunch advocate for the poor. Jones will ascertain if the coverage of her political demonstrations reveal a conviction in communitarian ethics. The paper will be submitted to a peer reviewed conference for presentation.

**LEESA KERN** (Sociology and Anthropology, fall 2016) Kern's sabbatical will explore religiosity in families in alternative religions. She will use both in-depth qualitative interviews and shorter quantitative questionnaires, administered at various multiple-day gatherings throughout summer and fall, to explore how members of religions that fall under the umbrella term of "Neo-Paganism" experience their religion in a family context.

**CLARE KILBANE** (Education, spring 2017) Teaching and learning at all levels is profoundly influenced by ubiquitous access to knowledge resources possible via wireless devices and the Internet. During her sabbatical, Kilbane will examine the status of teaching in face-to-face and online settings to better understand new directions for

Otterbein's graduate and undergraduate programs and produce two scholarly publications.

**MATTHEW McMULLEN** (Mathematical Sciences, spring 2017) McMullen will use his sabbatical to advance his knowledge of statistics education, following recent recommendations from the American Statistical Association. Aided by this knowledge, he will review Otterbein's current introductory statistics courses and create a campus-wide seminar and a formal report indicating how to improve our statistics pedagogy.

**SUSAN MILLSAP** (Communication, spring 2017) Mills' sabbatical will be spent creating a workbook and expanding the outreach for her course Dramatic Impact in the Classroom which is offered summers through the Education Department for elementary and secondary teachers.

**ALLEN REICHERT** (Library, spring 2017) Reichert's sabbatical seeks to develop research partners and techniques related to local resources that will benefit Service Learning at Otterbein. This will lead to a paper on local source research. Further, he will develop a plan for housing materials produced in Service Learning classes online in the Digital Commons.

**JOAN ROCKS** (Health and Sport Sciences, spring 2017) Otterbein's Athletic Training major has been nationally accredited since 2000. The next reaccreditation process is 2017-18 with the written self-study due July 2017. Rocks' sabbatical will focus on completing this Self-Study. The sabbatical will also research the development and potential implementation of a Master's Entry Level Athletic Training Program.

**NOAM SHPANCER** (Psychology, spring 2017) Shpancer proposes two sabbatical projects. The first involves writing up a research paper

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analyzing data he collected between 2000-2015 about changes in students' attitudes toward daycare and maternal employment. The second involves finishing his new book, 'The Sexuality Teacher,' a darkly comic campus novel.

**KERRY STRAYER** (Communication, fall 2016) In 1995, the two largest Mennonite denominations in North America merged. Twenty years later, Mennonite Church USA seems poised on the brink of schism. Strayer's sabbatical will include working on an edited book, documenting the issues leading to divergence. This book continues the work of her dissertation (1995), documenting the original merger.

**JOHN TANSEY** (Chemistry, fall 2016) Nearly all cells store fat, but the mechanisms by which this occurs and how this contributes to disease are still unclear. Tansey's sabbatical will continue his research into the structure and function of the perilipin family of lipid storage droplet proteins, specifically perilipin 5 a critical regulator of fat storage.

**UWE TRITTMANN** (Physics, fall 2016) Trittmann will continue his research on the single-particle spectrum of adjoint two-dimensional quantum chromodynamics to settle remaining issues raised in his most recent publication. Additionally, he will work on a manuscript for a general education astronomy textbook to be used in INST 2403 "The Expanding Universe."

### FACULTY SCHOLAR DEVELOPMENT COMMITTEE - FSDC INTERNAL GRANTS

FSDC provides funds to support full-time faculty at all levels of career development in scholarly and artistic activities related to their work at Otterbein University. These grants are primarily intended for the enhancement of the professional activities of faculty; specifically research, artistic projects, and publications.

**MICHELE ACKER**, Psychology

*Defining Love: A qualitative analysis of 30 years of letters from the Juliet Club archive*

This project involves travel to Verona, Italy to work in the Juliet Archive. Acker will be looking at experiences of love through the analysis of letters asking for advice written to the Juliet Club of Verona over the last 30 years. She plans to do a cross-cultural and cross-temporal analysis of the kinds of emotions and problems described around love experiences. Letters will be digitized, transcribed, and translated. Qualitative methods such as narrative psychology and grounded theory will be used to create meaning from the sample of letters. Acker will also learn Italian and plan future work in the archive.

**HEIDI BALLARD**, Sociology

*Implementing and Assessing Sustainable Development and Community Wellness Projects in Rural Uganda*

The dual aims of Ballard's project are to 1) advance ongoing collaborative work in gender equity and girls empowerment and health education projects in rural Uganda undertaken by Dr. Diane Ross, Otterbein faculty, students and Ugandan stakeholders; and 2) build upon her own scholarship and experience in global public health and sociology through observation of clinical public health practices, assistance with the initiation and continuation of health education projects, and initiation of outcome assessment design and implementation of reusable feminine projects and sexual health curriculums in order to further develop her professional scholarship, experience and networks in public health and public sociology.

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**JENNIFER BENNETT**, Biology and Earth Science  
*Identification and Characterization of Cyclic di-GMP Binding Proteins in Streptomyces species*

The objective of the proposed research is to search for proteins that directly bind the small signaling molecule cyclic di-GMP in the pharmacologically relevant streptomycetes. cyclic di-GMP conjugated to biotin will be incubated with cell extracts from the model streptomycete, *Streptomyces coelicolor*, or the agricultural pathogen, *Streptomyces scabies*. Proteins bound to cyclic di-GMP will be separated using streptavidin-coated magnetic beads and will then be identified at the Duquesne mass spec facility. Novel proteins and encoding genes identified in this way will need to be characterized using a variety of methods, including microscopy, constructed mutations, and biochemical assays for protein function.

**JOAN ESSON**, Chemistry  
*An international comparison of the awareness and use of evidence-based reforms by faculty in STEM higher education and factors that influence faculty decision-making*

The number and preparation of students in the United States pursuing science, technology, mathematics, and engineering (STEM) degrees is less than that of other developed countries, and has been cited as an area of national concern. Evidence-based teaching reforms have been developed and shown to improve student engagement and learning; however, these practices have not been widely adopted. This study explores the awareness and use of evidence-based reforms by faculty in multiple STEM disciplines at Otterbein and abroad, as well as factors that influence their decision making about teaching practices in order to identify areas for improvement in the U.S.

**NICHOLAS HILL**, Art  
*Artist-in-Residence at Vytlacil, Sparkill, New York*  
Nicholas Hill has been selected, through a peer-reviewed process, to receive a month-long residency at Vytlacil, the art residency center for the New York Art Students League. The residency will provide accommodations, a private studio, individual critiques with leading

New York artists, and opportunities to see exhibitions in New York City museums and galleries. The residency has been awarded for May, 2016. Peer-reviewed residencies are one of the two primary professional activities (along with solo exhibitions) that are seen as significant creative achievements in the Department of Art's Scholarship statement.

**JONATHAN JOHNSON**, Art  
*I KM VOL. II (one kilometer volume two)*  
"One Kilometer Volume II" is the sequel to "I KM VOL.I", a photobook featuring color photographic images made during, and in relationship to, the solitary act of walking through urban and rural landscapes of Costa Rica. Contemporary uses of photography are associated with digital culture, social media and self-documentation. In contrast, this project embraces slowness through its production (walking, using color film) and dissemination through the book form; one of our final refuges for experiencing photographs in a personal, slow and physically interactive way.

*Low Season*  
"Low Season" is a short-form documentary film that explores the relationship of personal and physical landscapes of the Upper Midwest and the hidden narratives contained within. This film features footage shot in Ohio's Wayne National Forest using Super 8mm movie film and high-definition video and includes an original score.

**AMANDA KLINE**, Art  
*Legend Has It*  
Amanda Le Kline's exhibition Legend Has It will be on view at Mote 1347 Gallery at 1347 N. High St. Columbus, OH May 7-31, 2016. Legend Has It is a multi-media installation of Kline's current research. She tells narratives, constructs fantastical spaces, and emphasizes bizarre objects in order to appreciate the uncanny that lies within our desires to get closer to nature and within our incessant yearning for answers to life's most impervious questions. The intersection of reality and fantasy within our environments, whether that space is real or an

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illusion, creates grounds that are rich for spectacle, beauty, and humor.

### **BRUCE MANDEVILLE**, Equine Science

#### *Beijing Equine Study*

Mandeville will present a paper to the Beijing International Conference on Equine Science (BICES). The purpose of the trip will be to extend his study of horses in urban settings. There are 80 equestrian clubs in and around Beijing. Mandeville will visit these clubs to explore areas he has explored during his sabbatical, "Police horse use: challenges and benefits – best practices." Areas would include training methods (horse and rider), housing and budget challenges, type and origin of horses, benefits and challenges of horses in the urban setting (manure, and type of tack). If available, he will collect available historic data and photographs of the developing equestrian industry in Beijing. Mandeville will compare Beijing with American cities, revealing the most effect methods in the areas described above. China has the second largest number of horses in the world with 6.8 million behind the 9.2 million in the USA (FAOSTAT data, 2008).

### **STEPHANIE PATRIDGE**, Religion and Philosophy

#### *Art Videogames Art? The Museum of Modern Art Thinks So*

Art videogames art? Currently, MoMA has added fourteen video games to its Applied Design installation in The Philip Johnson Architecture and Design Galleries, with a future plan to present 40 in total. This is a groundbreaking curatorial decision. No other major art museum has added videogames to its permanent collection. Patridge will visit the Applied Design exhibition at the MoMA. This will support her teaching and research as she is a philosopher of art who conducts research on the philosophy of videogames, and teaches courses on the philosophy of videogames.

### **SHELLEY PAYNE**, Health and Sports Sciences

#### *"Contemporary Research Using Running Gait Analysis and Retraining"*

In the past, running gait analysis has been reserved for laboratory settings with 3-dimensional analysis capabilities. There is a

movement within the literature to use equipment that is cost effective and accessible for all clinicians to provide accurate analysis for their clients. In addition, emerging theories regarding running gait retraining continue to need validation within specific patient populations. Academic year 2015-16 presents an opportunity to build a running gait lab at Otterbein and work with leaders in the field to build a sustainable line of research to validate many of the new theories within the Otterbein and Westerville area Marathon-in-Training runners.

### **AARON REINHARD**, Physics

#### *Absorption Imaging an Ultracold Atom Cloud in a Magneto Optical Trap*

As an atomic physicist working in the field of laser cooling and trapping, this project is a part of the ongoing construction of the lab in which Reinhard expects to form the basis of his scholarship for his entire career. Reinhard is building a fully-functional experimental atomic physics lab dedicated to the study of ultracold Rydberg atoms.

### **CARRIE SCHECKELHOFF**, Education

#### *Ben's Twice Told Tale: Using Drama To Provoke Preservice Teachers' Interpretive Readings of Student Data*

This project explores the effect of two dramatic interventions (readers theatre and tableau) on preservice teachers' analysis and interpretation of at-risk student learning data. This project formalizes ongoing informal examination of instructional interactions used in her literacy methods courses from autumn 2013 to spring 2015. From prior informal examination of these dramatic techniques, Scheckelhoff has learned that the tools used to collect data (tape audio recorders and low definition point and shoot camera) significantly limits the quality of image/audio data collected. For this formal systematic investigation (AU 2015) FSDC funding will help to secure tools that will increase her data collection efficiency.

## Faculty Achievements, Spring 2016

**DAVID SHERIDAN**, Biology and Earth Science

*Local field potential recordings in Cortical Neurons of the Rodent*

Neurons in the brain communicate with each other via electrical and chemical signals. These signals can be recorded, measured, and analyzed with a technique called patch clamp electrophysiology. This technique can record either signals from individual neurons or ensemble activity signals from hundreds to thousands of neurons. Typically, experimental set ups to make these recordings cost in the range of \$65,000. The goal of this grant is to acquire a new, low-cost experimental set up and cells that will facilitate student learning and training in laboratory techniques pertinent to their research projects and senior year research presentations in neuroscience.

*Molecular biological manipulation of glucocorticoid receptors and calcium channels*

Neurons in the brain communicate with each other via electrical and chemical signals. These signals are received and propagated by specialized cellular membrane proteins, such as receptors and ion channels. These membrane proteins are responsible for translating the extracellular signal into a "language" that the intracellular proteins can understand. The first goal of this grant is to acquire molecular biology tools to "tag" specific receptors and ion channels with fluorescent proteins so they can be visualized with fluorescence microscopy. The second goal of this grant is to acquire computer software for the analysis and presentation of acquired data.

*Electrical stimulation of cortical neurons of the rodent brain*

The goal of the olfactory system is to transduce external stimulus energy into electrical signals. Neurons in the brain communicate with each other with these electrical signals. For example, odor molecule receptors in the lining of the nasal cavity transduce the stimulus, chocolate, into the electrical "language" that the neurons in the brain can understand, integrate, and interpret the odor stimulus as chocolate. The goal of this grant is to purchase an electrical stimulator to mimic the incoming electrical signals in neurons of the brain. In the

lab, responses will be recorded of individual neurons from cultured neurons and also brain slices of rodents to the incoming electrical signals.

**DEBORAH SOLOMAN**, History and Political Science  
*Schooling Discontent: Student Protest in Colonial Korea, 1910-1945, archival research travel*

Solomon's funding will assist in covering the costs of domestic summer research travel, which will be a critical part of her scholarship this summer. The completed manuscript will be submitted in August to Stanford University Press for review at the request of Jenny Gavacs, their Sociology and Asian Studies editor. Completing this research and drafting the complete book manuscript will allow Solomon to move forward on publishing her work, which will be the first English-language scholarly monograph about student protest in Korea under Japanese rule (1910-1945).

**KERRY STRAYER**, Communication

*The Boulder in the Road: the schism of MC USA*

Twenty years ago, the two largest denominations of Mennonites in North America voted to merge into a single denomination. This summer, the merged church will meet in Kansas City for its 2015 Biennial Conference. But a mere 20-years later, a schism threatens to tear apart the church. The putative reason is theological differences on the debate over homosexuals' role in the church, however, Strayer would argue that ultimately the disagreement has more to do with three other factors: 1) the role of polity within the church, 2) the authority of church leadership to make theological pronouncements, and 3) the differing perception of the guiding theological documents.

**ERICA VAN DOP**, Health and Sport Sciences

*Effectiveness of self-regulation on rates of physical activity adherence in a worksite wellness program*

Rates of physical activity (PA) decline with age (Sallis, 2001). Decline in PA has been associated with lack of time, cost, access, and responsibility (Dunn, 1999). PA interventions use Social Cognitive Theory (SCT) to explain PA

## Faculty Achievements, Spring 2016

behavior (Baranowski, 2001). SCT uses self-regulatory behavioral skills for individuals to attempt to adopt and adhere to behavior. The intervention focuses on improving self-regulation skills for maintaining long-term PA behavior in an 8-week pre-/post-test control group design with four week follow up; examining self-regulation, self-efficacy, and adherence. The outcomes may impact the effectiveness of PA programs and help researchers understand how to improve PA adherence rates.

**PATRICIA WILSON**, Health and Sport Sciences  
*Strengths Pilot Project with Leadership Living and Learning Community*

What would happen if we looked at what was right with people? This project involves piloting a Strengths-Based program with the Freshmen Leadership Living and Learning Community students by helping students discover, develop and apply their Strengths to all aspects of their

college experience (academic, social, personal, professional, and leadership). This study will be used as a pilot project to gather data to support the Strengths@Otterbein initiative and advisory group.

**MICHAEL YONCHAK**, Music  
*This Shark Will Not Be Jumped: Deconstructing Frank Zappa's "Yellow Shark"*

The legacy of Frank Zappa is at the core of new research that explores his unique compositional style, but also performance and innovative techniques in recording. Yonchak's work addresses Zappa's prowess as a studio engineer and producer. According to the late Gail Zappa, "the Yellow Shark is Frank at the absolute top of his game as a composer and producer." Currently, there is no significant research being done on this particular album, and Yonchak believe it can provide a missing narrative to Zappa's legitimacy as a modern American composer and producer

### FACULTY SCHOLAR DEVELOPMENT COMMITTEE - HIGH IMPACT GRANTS

The High Impact Grant provide funds to support a full-time faculty member at any level of career development in the scholarly and artistic activities related to their work at Otterbein University. This grant is primarily intended for the enhancement of the professional activities of faculty; specifically research, artistic projects, and publications.

**NICHOLAS HILL**, Art  
*"Valparaiso Street Murals: A Printmaker's Response"*

Nicholas Hill has been invited to return to Casaplan Cultural Center in Valparaiso, Chile for July, 2016. His residency and exhibition will employ the urban tradition of Valparaiso street murals, while engaging with and responding to neighborhood residents. To prepare, Hill will complete a series of six large-scale woodcut prints (3 x 5 feet each.) The woodcut images will come from a series of portrait prints that Nicholas created in Valparaiso last summer. A bilingual catalogue will be published to complement interactive studio activities that will occur at Casaplan.

**AARON REINHARD**, Physics  
*Construction of Two External Cavity Diode Lasers for Rydberg Excitation*

This project is a part of the ongoing construction of the lab in which Reinhard expects to form the basis of his scholarship for his entire career. Reinhard is building a fully-functional experimental atomic physics lab dedicated to the study of ultracold Rydberg atoms. Two external cavity diode lasers are expected to be built and these lasers will be used to excite ultracold atoms to high-lying, or Rydberg, states and will be essential to the long-term success of the experiment.

## Faculty Achievements, Spring 2016

### FACULTY SCHOLAR DEVELOPMENT COMMITTEE - INTERNATIONAL COLLABORATIVE FACULTY ENRICHMENT GRANT

The Otterbein University Faculty Collaborative International Enrichment Grant is designed to expand faculty members' international learning, awareness, and experience, both for the potential enhancement of the curriculum and for their own intellectual enrichment. Although global learning can be meaningfully addressed in a local or broader national context, the purpose of these grants involves the travel, collaboration, and immersion of a team in a context outside of the United States.

**ELIZABETH (BEAUX) BERKELEY**, Biology and Earth Science

**SARAH BOUCHARD**, Biology and Earth Science

**HALARD LESCINSKY**, Biology and Earth Science

**ANNA YOUNG**, Zoo Science

*Ecology and Conservation in South Africa: Building Educational and Research Opportunities*

Zoo and Conservation Science Faculty will travel together to South Africa to build research, conservation, and education ties. Working with faculty at Nelson Mandela Metropolitan University (NMMU), we will strengthen internship opportunities, faculty and student research, discuss study abroad opportunities at NMMU (ex. build an Aquarium track for Otterbein's Zoo major) and plan a travel course (ex. identify appropriate student opportunities in conservation, homestays (culture), and wildlife experiences).

### FACULTY SCHOLAR DEVELOPMENT COMMITTEE - SUMMER 2016 WRITING AWARDS

The purpose of the FSDC Summer Writing Awards is to recognize, reward, and provide incentive to those faculty who are engaged in scholarly writing activities, so that they may disseminate and share their scholarship within the scholarly community.

**JENNIFER BENNETT**, Biology and Earth Science

*JoVE Article*

Bennett will work on manuscripts to incorporate data collected during her sabbatical this summer and fall, and has been invited to submit a methods article to the *Journal of Visualized Experiments (JoVE)*. The invitation followed the cyclic di-GMP paper that was published in the *Journal of Bacteriology*. The methods paper will have a written and video component to it. The idea is that the published article will allow other researchers to visualize how we conduct a particular experiment or set of experiments in addition to having the written paper containing the protocol.

**JOAN ESSON**, Chemistry

*Chemistry Curriculum Design and NSF-WIDER Studies*

Esson intends to write a minimum of three manuscripts on three distinct projects, including (i) a study of the effects of flipped chemistry classrooms on student learning and attitudes; (ii) a study of the effects of a redesigned general chemistry laboratory on

student learning, views of scientific inquiry, and attitudes; and (iii) a NSF-WIDER study. This latter project involves three distinct sub-areas including (i) a university-wide study of teaching practices in gateway STEM courses; (ii) examination of practices that affect student persistence in STEM fields, and (iii) examination of laboratory learning goals across multiple STEM disciplines.

**DEAN JOHNSTON**, Chemistry

*Publication of student-generated crystal structures*

Two papers describing the structures of a series of inorganic complexes will be written and submitted to appropriate peer-reviewed journals. The first will describe a set of solvated ammonium salts of molybdenum halide clusters that were prepared by undergraduate students. The second will focus on correcting an error in the previously-published structure of a well-known ethylenediamine complex of cobalt, also prepared by undergraduate students as part of a research project. The student involved will be listed as co-authors.

## Faculty Achievements, Spring 2016

**JEFFREY LEHMAN**, Biology and Earth Science

*Writing and Submission of Original Research on the Range of Toxicity of Maple (Acer) Species*

Lehman will write and submit an original manuscript on plant toxicity entitled "Toxicity of Leaf Extracts of Acer species on Equine Erythrocytes". This manuscript is a culmination of three years of data collection and represents significant findings on red maple leaf toxicosis. By the end of the granting period, Lehman proposes to finish and submit the manuscript. The results of this paper have pronounced implications for the equine industry and the management of trees associated with pastures. The work is part of his ongoing scholarship on red maple toxicosis which has resulted in 1 peer-reviewed journal article and 3 peer-reviewed abstracts.

**JEREMY LLORENCE**, English

*The Dead Wrestler: A full-length play adapted from the poems of Todd Kaneko*

The Dead Wrestler is a play based on the book of poems, "The Dead Wrestler Elegies" by Todd Kaneko. This two character play will follow recently engaged Kal Harmon, who has been charged the difficult task of inviting his estranged and long-divorced father Gene to his upcoming wedding. In order to do so, however, Kal must attempt to repair a father/son relationship both empowered and destroyed by their mutual admiration of professional wrestling. Throughout the play, Kal and Gene battle each other, themselves, and imagined versions of their favorite wrestlers including: Sputnik Monroe, and Owen Hart. This play seeks to interrogate conceptions of masculinity, celebrity, and the American family.

**KRISTY MCCRAY**, Health and Sport Sciences

*Manuscripts on the knowledge of sexual assault among intercollegiate athletes, as well as the prevention of sexual assault in college athletics*

McCray's summer writing has two goals: (1) completion and submission of two manuscripts based on her dissertation and (2) the creation of a syllabus for a new course in her teaching load, based on an annotated bibliography. These goals serve to advance the HSS scholarship statement. They keep McCray relevant and recognizable with her peers in the field of sport management and will also allow her to hone her skills in the classroom on teaching sport and gender issues for SMGT 2550. Further, McCray's summer goals will help her to prepare students in SMGT 4800 for discussions and assignments on ethics, decision-making, and best business practices, among other relevant topics to their careers.

**KAREN STEIGMAN**, English

*"Joan Didion and Complicity"*

"Joan Didion and Complicity" is a revision of Steigman's presentation given as an invited roundtable participant at the Modern Language Association (MLA) Annual Convention in January 2016. Her essay in particular looks at Didion's novels as understudied participants in the formal experimentation that brings together modernist and postmodernist aesthetics. Steigman's work explores an aspect of Didion work—her fiction—that has been neglected in the face of her renowned literary status as an essayist. "Joan Didion and Complicity" continues Steigman's scholarship on both Didion and Graham Greene (as part of the essay considers Didion's relation to Greene's travel writing). Steigman will complete her essay for publication and complete her departmental scholarship requirements for promotion.