Research, Scholarship, and Creative Activity

Fiscal Year 2016-2017

FEATURED INSIDE

$4 M Grant clears path for STEM students
PAGE 26

Summer Undergraduate Research Experiences
SURE paid off
PAGE 27

Wildlife DNA Lab gets dubbed "Hub" in national magazine
PAGE 35
Colleagues,

The theme of this year’s grant recognition initiative is Connectivity—an apropos sentiment to complement the efforts of so many ESU students, faculty, and staff members to create a “University without walls.” Our goals of our updated strategic plan, Students First: Empowering Innovation through Collaboration, align so well with the work being done by those named in this publication; we are working toward developing a culture of research, scholarship, and continuous learning while creating a curious, inventive and risk-taking community. The words collaboration and community are so intrinsic to creating the connectivity we celebrate today.

Those representing ESU on these pages have established deep connections with regional community colleges and business and industry while developing student-faculty partnerships that have brought millions of dollars and tremendous recognition to our campus. I’m pleased to announce that during this fiscal year we have achieved the highest number of documented grant awards in the history of ESU which has enabled us to surpass our $5 million goal. With awards for 2016-2017 totaling $6,883,275, we are truly witnessing a transformation of scholarship on our campus. This achievement is a testament to all of you and all of your efforts that continue to make ESU a progressive academic institution.

Notable achievements in research, entrepreneurship, and creative activity of this year include the launch of the President’s Distinguished Entrepreneurial Speaker Series with ESU graduates who are changing the world, the $4 million Clear Path scholarship grant which supports transfer students in their completion of STEM degrees at ESU, and the formulation of SITE (Scholarship, Innovation, Technology, and Entrepreneurship), the faculty initiative that has created both physical and metaphoric spaces for the community to come together and explore the intersection of ideas and concepts through a creative lens. Again, it is our connectivity with one another – on campus and within our greater community – that continues to make us stronger.

With fiscal challenges ahead of us as an institution, grants become increasingly important in our efforts to engage our students in cutting edge research, technology, creative endeavors, and entrepreneurial activities. We must all work together to seek new resources that can help us to continue our mission of creating a challenging and contemporary curricula that equips all of our students for success after graduation.

I look forward to many continued years of success – not only in funding for your research but in the important work being done to advance innovative thinking for a future yet unknown to us. Congratulations to the ambitious students, faculty, and staff who are highlighted in this publication. Your tremendous passion and dedication encourage us all to reach higher, do more, and work together with a common goal of making our campus and this world a better place.

Marcia G. Welsh, Ph.D., President
East Stroudsburg University
The mission of the Office of Sponsored Projects and Research, Division of Academic Affairs is to advance the research enterprise at East Stroudsburg University by promoting an environment that fosters creativity, collaboration, and community.
# Research, Scholarship, and Creative Activity

## Table of Contents

1. Message from the President
2. Mission Statement
4. Annual Research Metrics for Sponsored Projects
6. College of Arts and Sciences
16. College of Business and Management
17. College of Education
18. College of Health Sciences
22. University Divisions and Affiliates
26. Clear Path Scholarship
27. S.U.R.E. Grant Recipients
30. Where in the World
32. Student Symposium
34. Entrepreneurship and Innovation
38. Creative Exhibits
40. Published Books by Members of the Academic Community
Annual Research Metrics for Sponsored Projects

The Office of Sponsored Projects and Research, within the division of Academic Affairs, continues to support the advancement of the research and creative activity enterprise at ESU with a specific focus on the inclusion of undergraduate research in all disciplines.

The University has experienced fluctuations in grant requests and awards over the past ten years. Grant awards this year are the highest ever recorded for the University.

**Ten Year Overview: External Grants Requests and Awards**

<table>
<thead>
<tr>
<th>Year</th>
<th>Funds Requested</th>
<th>Funds Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>07-08</td>
<td>10,000,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>08-09</td>
<td>20,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>09-10</td>
<td>25,000,000</td>
<td>12,500,000</td>
</tr>
<tr>
<td>10-11</td>
<td>20,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>11-12</td>
<td>15,000,000</td>
<td>7,500,000</td>
</tr>
<tr>
<td>12-13</td>
<td>10,000,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>13-14</td>
<td>15,000,000</td>
<td>7,500,000</td>
</tr>
<tr>
<td>14-15</td>
<td>20,000,000</td>
<td>10,000,000</td>
</tr>
<tr>
<td>15-16</td>
<td>25,000,000</td>
<td>12,500,000</td>
</tr>
<tr>
<td>16-17</td>
<td>20,000,000</td>
<td>10,000,000</td>
</tr>
</tbody>
</table>

**EXTERNAL GRANT AWARDS 2016-2017**

- Federal: $5,444,148, 10 proposals awarded
- State: $551,803, 6 proposals awarded
- Private: $792,622, 22 proposals awarded
- PASSHE: $94,701, 4 proposals awarded
- SUM: $6,883,275, 42 proposals awarded

**EXTERNAL GRANT REQUESTS 2016-2017**

- Federal: $5,138,760, 9 proposals submitted
- State: $1,476,022, 11 proposals submitted
- Private: $1,742,851, 32 proposals submitted
- PASSHE: $99,133, 4 proposals submitted
- SUM: $8,456,766, 56 proposals submitted

**Trend in External Proposals**

- 2015-2016: 61 submitted, 40 awarded
- 2016-2017: 56 submitted, 42 awarded

*OVER 250% increase in external grant awards since 2015-2016.*
2016-2017 External Awards & Requests by College/Division

<table>
<thead>
<tr>
<th>College/Division</th>
<th>Proposals Submitted</th>
<th>Proposals Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Arts and Sciences</td>
<td>28</td>
<td>19</td>
</tr>
<tr>
<td>College of Business and Management</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>College of Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>College of Health Sciences</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>University Divisions and Affiliates</td>
<td>20</td>
<td>13</td>
</tr>
</tbody>
</table>

- **College of Arts and Sciences**
  - 64% of proposals submitted
  - $4,374,617 total amount
- **College of Business and Management**
  - 0.5% of proposals submitted
  - $3,668 total amount
- **College of Education**
  - 6% of proposals submitted
  - $428,480 total amount
- **College of Health Sciences**
  - 5% of proposals submitted
  - $343,651 total amount
- **University Divisions and Affiliates**
  - 25% of proposals submitted
  - $1,732,859 total amount

*University Divisions and Affiliates include: Economic Development & Entrepreneurship, ESU Foundation/Office of University Advancement, Kemp Library, and Student Affairs*

---

**Faculty Development and Research (FDR) Internal Grants**

- **FDR Total Amount Requested 16-17**: $101,458
- **FDR Total Amount Awarded 16-17**: $66,763

---

**FDR Requested and Awarded Funds by College/Division**

**FDR Submissions and Funded Proposals by College/Division**
COLLEGE OF

Arts and Sciences

OLIVIA CARDUCCI
JYH-HANN (JOHN) CHANG

DARLENE FARRIS-LABAR
JON GOLD
BONNIE GREEN
CHRISTINE HOFMEISTER

RICK KELLY
JOCELYN KOLB-DEWITT
JOHN KRAYBILL-GREGGO
JOSHUA LOOMIS

JONI OYE-BENINTENDE
JERRY ROSS
JEFF RUTH
HOWARD WHIDDEN

2016-2017 Research, Scholarship, and Creative Activity
External Grants

<table>
<thead>
<tr>
<th>Funds Awarded</th>
<th>$4,374,617</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Requested</td>
<td>$4,828,653</td>
</tr>
<tr>
<td>Proposals Awarded</td>
<td>19</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>28</td>
</tr>
</tbody>
</table>

FDR Grants

<table>
<thead>
<tr>
<th>Funds Awarded</th>
<th>$31,857</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Requested</td>
<td>$53,322</td>
</tr>
<tr>
<td>Proposals Awarded</td>
<td>13</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>20</td>
</tr>
</tbody>
</table>

JYH-HANN (JOHN) CHANG
Psychology

Think Drink—Stay Hydrated

Funding Source: Pennsylvania Faculty Health and Wellness Fund
Amount Awarded: $1,500

Professor Chang’s project followed on a previously funded Healthy Lifestyle Initiative Grant called The Hydration Challenge, awarded in 2015 from the same funding agency. This grant-funded program included an important educational component for faculty on campus to recognize the signs of dehydration and utilized follow-up reminders to encourage cognizance of the importance of staying hydrated.

NICOLE CHINNICI
Northeast Wildlife DNA Laboratory (NEWDL)

Grove City College Tick-borne Disease Surveillance

Funding Source: Grove City College
Amount Awarded: $14,500

In collaboration with Grove City College, the Pennsylvania Department of Health and the Centers for Disease Control, the NEWDL tested 2,000 ticks from across Pennsylvania to determine the prevalence of tickborne diseases including Lyme, Babesiosis, and Anaplasmosis.

Elk Project

Funding Source: Grand Canyon National Park
Amount Awarded: $7,220

The NEWDL was awarded grant funds from the Grand Canyon National Park to evaluate a newly established Elk population. Samples were submitted to the laboratory and DNA was analyzed.

New Jersey Turtle Grant

Funding Source: New Jersey Division of Fish and Wildlife (NJDFW)
Amount Awarded: $3,406

The NEWDL received a grant from the NJDFW Endangered Species Program to evaluate the population diversity of wood turtles in northern New Jersey. Students and technicians from the lab traveled to streams in New Jersey and worked with NJDFW endangered species technicians to collect samples from turtles. Results of the project illustrated the genetic diversity of the wood turtle population.

ROBERT COHEN
Physics

Using Cutting Edge Technology in STEM at ESU

CO-PIS:

DARLENE FARRIS-LABAR
Art + Design

SHIXIONG (SHAWN) HU
Geography

RICHARD OTTO

College of Business and Management | Digital Media Technologies

Funding Source: PPL Foundation—Entrepreneurship Across the Colleges
Amount Awarded: $2,500

This grant funded the acquisition of cutting-edge equipment for the University community, thus connecting our faculty, students, and staff with the innovative and ever-changing landscape of modern technology. The drone and pair of high-tech virtual reality glasses will be integrated into several of ESU’s departments—namely physics,
digital media technology, geography, and art + design. The devices will help students learn about meteorology, new videography techniques, and virtual mapping.

TIM CONNOLLY
Modern Languages, Philosophy, and Religion

Understanding Chinese Legalism
Funding Source: FDR Major Leveraging Grant
Amount Awarded: $5,000
Legalism is a Chinese political philosophy that emphasizes the human tendency towards vice and the corresponding need for strict laws, heavy punishments, and a ruler who uses the full power of his position in order to maintain social order. This grant funded Professor Connolly’s work on a research paper on the writings of the Legalist philosopher Shen Dao, and also helped fund participation in an international panel exploring recent scholarship on Shen Dao at Nanyang Technological University in Singapore.

DARLENE FARRIS-LABAR
Art + Design

Emerging Technologies in Art + Design: Virtual Reality and Holograms
Funding Source: PASSHE Faculty Professional Development Council (FPDC)
Amount Awarded: $1,900
This State System-funded grant afforded Professor Darlene Farris-LaBar a unique and relevant professional development experience in the emerging technologies of 3D design and virtual reality. Her attendance at the prestigious Virtual Reality Show Conference in London, England enhanced her skills in these areas which she integrated into her classroom and specifically into the Advanced 3D Design course. Student impact included hands-on experience with the Hololens, ESU’s first set of high-tech virtual reality glasses and the modeling and prototyping that resulted from the experience.

The Surrounding Planet
Funding Source: FDR Major Leveraging Grant
Amount Awarded: $6,500
This project capitalized on Professor Farris-LaBar’s previously-funded research and helped her create work in 3D digital design technology, art, and environmental communication through the use of available virtual, augmented reality holography technology. Funding for this project helped discover new ways of utilizing technology to boost visual communication about the planet’s environmental problems to a wider and more diverse global audience. The resultant digital art installation was shown in two international conferences composed of environmental communicators, environmental artists, and emerging technology experts from around the world.

JON GOLD
Chemistry

Seeking a Link Between Anomalous Troponin-I and Troponin-T Levels and the Diagnosis of Cardiac Sarcoidosis
Funding Source: Foundation for Sarcoidosis Research
Amount Awarded: $2,000
Cardiac Sarcoidosis (CS) remains a mysterious and elusive inflammatory disease with a still unknown cause; yet there is growing consensus towards an auto-immune mechanism. Professor Jon Gold’s research examined the possibility of using existing cardiac protein assays as a possible indicator of CS based on a recent case reported by the University of Pennsylvania’s Perlemen Center for Advanced Medicine.

BONNIE GREEN
Psychology

Gaining Awareness and Readiness for Undergraduate Programs (GEAR UP-3)
Funding Source: US Department of Education—Pennsylvania State System of Higher Education
Amount Awarded: $59,133
Pennsylvania’s State System of Higher Education received its third GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) grant from the United States Department of Education. Professor Bonnie Green was again chosen to serve as the external evaluator for this State System program. GEAR UP-3 is designed to assist underserved school districts with making students’ dreams of attending college become a reality. The program ensures that students and their families have access to the resources needed to graduate from high school and succeed at a post-secondary institution.
CHRISTINE HOFMEISTER  
*Computer Science*

**Developing Student Entrepreneurs: Coding for Language Learning**

**CO-PI: JEFF RUTH**  
*Modern Languages, Philosophy, and Religion*

**Funding Source:** Pennsylvania Department of Community and Economic Development – Entrepreneurship Across the Colleges  
**Amount Awarded:** $1,050

Coding skills and second-language competence are two highly-valued assets for those entering today’s workforce. This project developed both of these skills among ESU students and female students in the surrounding community, grades 6-12. ESU students coded four apps that support language learning, and inserted these into ESU language courses and marketed them via three online app stores. An ESU student also lead the ESU Girls Who Code club (part of a major national initiative aimed at reducing the gender gap among computer science professionals), guiding local girls in grades 6-12 through a weekly, after-school coding curriculum geared toward the innovation of language learning apps.

---

JAMES HUNT  
*Biological Sciences*

**Examining Climate Change Responses of Plankton in the Subarctic North Pacific Ocean Subarctic**

**Funding Source:** FDR Major Leveraging Grant  
**Amount Awarded:** $4,000

Climate change is a serious global environmental issue. The precise role of the oceans in mitigating climate change is still poorly understood. Although much attention has been given to the arctic, less research has explored biological community responses to climate change in the subarctic. In August 2017, Professor Hunt, together with an undergraduate student researcher and marine science and biology major, Leah Bergman, went on a three-week cruise to the subarctic North Pacific Ocean to explore the biodiversity and ecological responses of planktonic and benthic communities to climate change. This research experience fills an important gap in current knowledge about climate effects in the subarctic.

---

MICHELLE JONES-WILSON  
*Chemistry*

**S-STEM: Clear Path to Bachelor’s Degree Completion Scholarships**

**CO-PIS:**  
**OLIVIA CARDUCCI**  
*Mathematics*

**BONNIE GREEN**  
*Psychology*

**Funding Source:** National Science Foundation  
**Amount Awarded:** $4,039,527

In the largest single grant ever awarded to ESU, the National Science Foundation (NSF) awarded $4+ million to help STEM transfer students complete their education at ESU. The five-year grant for the project Clear Path provides scholarships for approximately 120 students who start their education at community colleges and transfer to ESU for bachelor’s degrees in the following science fields: biochemistry, physics, computer science, and mathematics. In addition to millions of dollars in scholarships, the grant supports invaluable science education research. Learn more on page 26.
**Establishment of a Regional Analysis Laboratory for Winemakers (RALW): Phase 2, Petiole Analysis**

**CO-PI: JON GOLD**

**Funding Source:** Pennsylvania Department of Community and Economic Development – Entrepreneurship Across the Colleges

**Amount Awarded:** $2,000

This project, which began in 2015, continued in the spring of 2017 by developing testing protocols for the analysis of grape petiole samples for determining the nutritional status of grapevines. The RALW program directors also purchased equipment and supplies used in the development of these methods. Set up of the laboratory in the Gessner Science Hall was completed and made operational for future testing of wine samples from regional wineries.

---

**Building 3D Printers**

**Funding Source:** Pennsylvania Department of Community and Economic Development – Entrepreneurship Across the Colleges

**Amount Awarded:** $1,000

Students from art + design, computer science, and physics built three 3D printers from components, thus increasing accessibility to technology for ESU students. As these printers are easily repaired, students would be able to operate them more independently than the art + design department G3D’s other more expensive printers. The printers will be used in future semesters in the art + design, physics, and computer science departments. In addition to the entrepreneurial aspects of this project the students gained a deeper understanding of the mechanics of additive manufacturing, which will inform their design work.
CARRIE MALONEY  
Sociology, Social Work, & Criminal Justice  
Phillipsburg NORWESCAP Byrne Criminal Justice Innovation (BCJI) Project  
**CO-PI: JOHN KRAYBILL-GREGGO**  
Sociology, Social Work, & Criminal Justice  
**Funding Source:** US Department of Justice – Northwest New Jersey Community Action Partnership (NORWESCAP)  
**Amount Awarded:** $71,250  
NORWESCAP and the Phillipsburg Police Department have been working together on community building since 2010 in an effort to reduce crime and improve community safety. The Phillipsburg Project has a special focus on youth and the Juvenile Detention Alternative Initiative (JDAI) by diverting youth from the criminal justice system. Professors Kraybill-Greggo and Maloney joined this initiative as research specialists in the area of youth criminal justice. They evaluated the program for continuous improvement, providing a critical, objective lens to the work.

DAVID MAZURE  
Art + Design  
**Student Designed Natatorium Mural**  
**CO-APPLICANTS:**  
JOE AKOB  
Student Activity Association  
JOSH LOONEY  
Intercollegiate Athletics  
**Funding Source:** Pennsylvania Department of Community and Economic Development – Entrepreneurship Across the Colleges  
**Amount Awarded:** $1,750  
The Student Designed Natatorium Mural Project was the first known endeavor of its kind at ESU with collaboration between the art + design and athletics departments with input from the Student Activity Association. The project resulted in a large-scale (106 feet wide by 6 feet tall), interior vinyl wall mural, in ESU school colors, that is displayed on the lower tiled wall of the natatorium bleacher section in Koehler Fieldhouse. See photo on page 11.

Join the Flock Socks  
**CO-PI: DEBBIE COUCHMAN**  
Computer Science  
**Funding Source:** Center for Research and Economic Development – Entrepreneurship Across the Colleges  
**Amount Awarded:** $2,500  
The Join the Flock Socks social entrepreneurship campaign set out to generate a campus-wide initiative aimed at shifting the culture among students, faculty, and staff to more fully embrace social entrepreneurship, creativity, and innovation. The project design was as follows: ESU students bought a pair of socks (designed and packaged at ESU and printed in New Jersey) and another pair were donated to a local or global charity in need of clean socks. Students chose the local charity Street2Feet Outreach Center and the global charity The Good Project as the benefactors of the socks. The project has since evolved into an ongoing annual project. Each year, the Join the Flock campaign will partner with a charity and then determine the donation model.

ANNIE MENDOZA  
Modern Languages, Philosophy, and Religion  
**Fourth Annual Latino Heritage Month Film Festival**  
**Funding Source:** PRAGDA Spanish Film Club  
**Amount Awarded:** $1,250  
**Funding Source:** Pennsylvania Council for the Arts Project Stream Grant via the ESU FOUNDATION  
**Amount Awarded:** $467  
**Funding Source:** Pennsylvania Department of Community and Economic Development – Entrepreneurship Across the Colleges  
**Amount Awarded:** $1,000  
For the fourth year in a row, Professor Mendoza successfully received support from various organizations for the Latino Heritage Month Film Festival. As in years past, the community joined together to engage in contemporary Spanish, Latin American, and US Latino cinema. The festival introduced students to the language and cultures of these communities with films that helped raise awareness of Hispanic...
communities abroad as well as here in the U.S. This effort continues to develop the ties that ESU has with the surrounding geographic regions, and in particular, the growing Latino communities of ESU, the Poconos, and other nearby areas.

**JONI OYE-BENINTENDE**  
**Art + Design**

**conFlux Cabin Fever**

*Funding Source:* Pennsylvania Council for the Arts  
*Amount Awarded:* $878

*Funding Source:* Pennsylvania Department of Community and Economic Development – Entrepreneurship Across the Colleges  
*Amount Awarded:* $878

The conFlux Cabin Fever event was a two day workshop that explored 3D digital design and 3D printing and introduced a DIY 3D printer. The workshop took place in the art & design department’s G3D Lab in the Fine and Performing Arts Center and included students ages 12 - adult. Professor Darlene Farris LaBar lead participants through a project using 3D design software, with an opportunity for participants to individualize their projects depending on their level of knowledge. Robert “Chuck” Stewart, a computer systems and 3D printing consultant, introduced the DIY 3D printer, a 3D printer that can be made by using open source designs and 3D printed parts.

**JERRY ROSS**  
**Physics**

**Remote Controlled Plasma Physics Experiment**

*Funding Source:* FDR Major Leveraging Grant  
*Amount Awarded:* $6,500

This FDR grant funded a robust undergraduate research experience involving a highly versatile interactive plasma physics experiment that was controllable from a simple internet web page. Professor Ross wanted to put control of experiments directly into the hands of his students allowing them to explore advanced concepts in an environment of complete safety while giving them access to sophisticated resources that would otherwise remain beyond their reach. This apparatus offered an experimental exposure to a host of topics which were already part of the state-required high school curriculum in chemistry and physics, and also offered new materials to introduce cutting-edge fields.

**HOWARD WHIDDEN**  
**Biological Sciences**

**Assessment of Population Status and Habitat Use of Eastern Small-footed Bats (Myotis leibii) in the Delaware Water Gap National Recreation Area**

*Funding Source:* The Conservation Fund  
*Amount Awarded:* $40,000

Professor Whidden was awarded funds to survey eastern small-footed bats in The Delaware Water Gap National Recreation Area (DEWA) using techniques that specifically target this particular type of bat, including visual roost surveys, harp trapping, and mist netting near talus slopes and rock outcrops in the park. Professor Whidden also used acoustic detectors in an attempt to document eastern small-footed bats by their echolocation calls.

**Continued Monitoring and Management of White Nose Syndrome-affected Bats**

*Funding Source:* US Department of the Interior — National Park Service  
*Amount Awarded:* $2,485

Professor Whidden monitored and took population surveys for the *Myotis lucifugus* and *Myotis septentrionalis* species in an effort to protect surviving populations and minimize future threats. These efforts included installation of bat boxes in both parks and surveys of buildings in the Delaware Water Gap National Recreation Area (DEWA) for additional maternity colonies.

**PAUL WILSON**  
**Biological Sciences**

**Cherry Valley National Wildlife Refuge Water Monitoring**

*Funding Source:* William Penn Foundation – Stroud Water Research Center  
*Amount Awarded:* $4,600

What used to be the Cherry Valley Golf Course was purchased as part of the Delaware River Watershed Initiative (DRWI). In an unprecedented collaboration to protect and restore water quality, more than 50 leading nonprofits have joined together to accelerate conservation in eight regions of the Delaware River Watershed—one being the Cherry Valley National Wildlife Refuge. With this project, ESU trained citizens as science volunteers, built and deployed in-stream...
From left: Christa Reeves (also a Clear Path scholar and associated with the Musconetcong Watershed Association, a partnering DRWI institution), Assistant Professor Paul Wilson, Alec Lederer (environmental studies graduate and current graduate student in the “Application of GIS & Remote Sensing in Environmental Science” program); Weston Strubert, environmental studies graduate and current graduate student in the biological sciences department, Anton Adams, environmental studies major, and David Bressler, Stroud Water Research Center. Photograph by Carol Hillestad.

**FDR MINI GRANTS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Description</th>
<th>Amount Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>MARGARET BALL</td>
<td>Theatre</td>
<td>Co-Lab Workshop (Theatre for actors with developmental disabilities)</td>
<td>$800</td>
</tr>
<tr>
<td>LAURENE CLOSSEY</td>
<td>Sociology, Social Work, and Criminal Justice</td>
<td>The Work Experiences of a National Sample of Mental Health Certified Peer Support Workers</td>
<td>$1,000</td>
</tr>
<tr>
<td>DARLENE FARRIS-LABAR</td>
<td>Art + Design</td>
<td>Radiation: The Borderless Anthropocene</td>
<td>$1,200</td>
</tr>
<tr>
<td>EUGENE GALPERIN</td>
<td>Mathematics</td>
<td>Attending the 2017 ICTCM International Conference</td>
<td>$1,200</td>
</tr>
<tr>
<td>ELIZABETH GIBBONS</td>
<td>Theatre</td>
<td>Dance Research</td>
<td>$633</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feedback and Pedagogy Observation and Technique</td>
<td>$520</td>
</tr>
<tr>
<td>MICHAEL GRAY</td>
<td>History</td>
<td>Instituting Civil War Tours Through the CWI, Gettysburg, Pennsylvania</td>
<td>$895</td>
</tr>
<tr>
<td>JOCELYN KOLB-DEWITT</td>
<td>Art + Design</td>
<td>SNAG Conference and Exhibition in Motion</td>
<td>$1,200</td>
</tr>
<tr>
<td>JONI OYE-BENINTENDE</td>
<td>Art + Design</td>
<td>Ancient to Modern Ceramics and Sculpture in China</td>
<td>$1,200</td>
</tr>
<tr>
<td>HOLLY WELLS</td>
<td>English</td>
<td>Blue Mountain Preservation Association Digital Archive</td>
<td>$1,200</td>
</tr>
<tr>
<td>XUEMAO ZHANG</td>
<td>Mathematics</td>
<td>Bioinformatics Training: Genomic Data Science</td>
<td>$1,162</td>
</tr>
</tbody>
</table>
Pocono Kittatinny Cluster (PKC) to monitor headwater quality and educate students to do the same. The overall goal of the PKC is to support and maintain regional water quality by preserving the watershed. Professor Wilson established and monitored six sites near to preserved land or land of general importance within the watershed. The sites were monitored throughout the year for water chemistry, invertebrate diversity and other relevant physical characteristics. Collected data determined whether water quality was being maintained or improved by cluster activities. The latest and most up-to-date monitoring techniques were incorporated into the laboratory pedagogy of relevant classes including Stream Ecology and Limnology.

---

**Student Researcher**

**BRANDON SWAYSER**  
*Biological Sciences*

**Monitoring Habitat Use of Hooded Warblers in Three Understory Types in the Delaware Water Gap National Recreation Area; A Master’s Thesis Proposal**  
**Funding Source:** The Eastern Bird Banding Association  
**Amount Awarded:** $750

ESU graduate student in the biological sciences department, Brandon Swayser, completed grant funded research which demonstrated that Hooded Warblers prefer to defend breeding territories in understory habitat dominated by Japanese Barberry. This shrub is a prolific exotic invasive species in the Delaware Water Gap National Recreation area of Northern Pennsylvania and New Jersey. Swayser’s thesis project, which began in spring of 2016, followed up on and supplemented previous research. Swayser is the first student to be recognized in this annual publication for receiving an external grant.

---

**EXTERNAL GRANT SUBMISSIONS**

**ABDALLA ALDRAS, Biological Sciences**  
NSF REU Site: Black Bears, White Footed Mice and Ticks as Indicators of the Health of the Environment  
**Co-PI:** NICOLE CHINNICI, Northeast Wildlife DNA Laboratory  
**Funding Source:** National Science Foundation, Amount Requested: $287,908 *not funded*

**NICOLE CHINNICI, Northeast Wildlife DNA Laboratory**  
Marsh Bird Identification, Funding Source: US Fish and Wildlife Services, Amount Requested: $6,175 *pending*  
Virginia Elk Genotyping, Funding Source: Virginia Game and Inland Fisheries, Amount Requested: $6,000 *pending*  
Tick-borne Pathogen Prevalence and the Implications on Humans, Domestic Animals and Wildlife in Pennsylvania  
**CO-PIs:** ABDALLA ALDRAS, JOSHUA LOOMIS, HOWARD WHIDDEN, *Biological Sciences*  
**Funding Source:** Pennsylvania Department of Agriculture, Amount Requested: $35,000 *not funded*

**MICHAEL JOCHEN, Computer Science**  
BACTAS: Broadening Access to Computational Thinking for All Students  
**CO-PIs:** CHRISTINE HOFMEISTER, Computer Science  
**BETH SOCKMAN, College of Education | Professional & Secondary Education**  
**Funding Source:** National Science Foundation, Amount Requested: $1,196,723 *pending*
YI-HUI HUANG  
Digital Media Technologies

Contracted Book Project: Theories in Digital Composite Photographs: 12 Artists and Their Work

**Funding Source:** PASSHE Faculty Professional Development Council (FPDC)  
**Amount Awarded:** $3,668

This State System grant supported Professor Huang to write her contracted book. Specifically the funds were used for consultants and article re-publication permission fees. This book, intended to be a supplementary textbook, is a theory-based understanding of 12 contemporary American and international digital artists and their composite photographs, which are combinations of various pieces of images, digitally synthesized in computers.

**FDR MINI GRANTS**

**MINJUNG KIM**  
Sport Management

The Production of Photographic Project Undividable Space  
**Amount Awarded:** $1,150

**From Commanding to Serving Athletes**  
**Amount Awarded:** $895

**RICHARD OTTO**  
Digital Media Technologies

Professional Development at National Association of Broadcasters Workshop  
**Amount Awarded:** $1,200

**DAISY WANG**  
Business Management

Case Method Teaching Seminar Harvard Business School  
**Amount Awarded:** $1,200
Since 1974, Upward Bound has been advancing the ideal of equal opportunity in post-secondary education. ESU believes that students from all segments of the population should have an opportunity to achieve academic excellence at the high school and college levels. The mission of ESU’s Upward Bound program is to promote intellectual curiosity and academic excellence, to acquire the ability to engage, make prudent choices, and develop the technical skills necessary to succeed in their secondary and post-secondary education. To fulfill this mission, this federal grant enabled the Upward Bound faculty and staff to provide academic instruction in subject areas supportive of the high school curriculum, group counseling, cultural programs and career guidance. Students are exposed to people, places, and events that deepened their dreams and broadened their life vision while they learned how to identify, establish and achieve goals discovered on their journey.

FDR MINI GRANTS

STEPHANIE MCCALL
Professional & Secondary Education

2017 Summer Institute for Qualitative Research Education and Social Research Institute of Manchester
Amount Awarded: $1,200
## COLLEGE OF Health Sciences

<table>
<thead>
<tr>
<th>External Grants</th>
<th>FDR Grants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Awarded</td>
<td>$343,651</td>
</tr>
<tr>
<td>Funds Requested</td>
<td>$82,892</td>
</tr>
<tr>
<td>Proposals Awarded</td>
<td>8</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>6</td>
</tr>
<tr>
<td>Funds Awarded</td>
<td>$28,061</td>
</tr>
<tr>
<td>Funds Requested</td>
<td>$40,226</td>
</tr>
<tr>
<td>Proposals Awarded</td>
<td>9</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>11</td>
</tr>
</tbody>
</table>

not pictured: Jane McDevitt

LUANN BATSON-MAGNUSON

SUSAN DILLMUTH-MILLER

GERARD ROZEA

2016-2017 Research, Scholarship, and Creative Activity
LUANN BATSON-MAGNUSON  
Communication Sciences & Disorders  
**Cognitive Linguistic, Audiological, and Physical Correlates in Rheumatoid Arthritis and Systemic Lupus**  
**CO-PIs:**  
**SUSAN DILLMUTH-MILLER**  
Communication Sciences & Disorders  
**MIHYE JEONG**  
Physical Education Teacher Education  
**Funding Source:** FDR Interdisciplinary Incentive Grant  
**Amount Awarded:** $6,243  
This grant funded an exploratory research project on the presence and pattern of cognitive linguistic deficits reported by and observed in clients with rheumatoid arthritis and systemic lupus erythematosus including attention, memory, problem solving, executive functioning, narrative ability, naming ability, verbal comprehension and expression, and verbal fluency.

CLARE LENHART  
Health Studies  
**Live Healthy PA**  
**CO-PI: KRISTINA ZWOLENIK**  
**Funding Source:** Centers for Disease Control and Prevention — Pennsylvania Department of Health  
**Amounts Awarded:** $218,313; $10,000  
In this multi-year, ongoing grant, Professor Lenhart and her research team served as external evaluators in a state-wide effort aimed at reducing the impact of chronic disease. This wide ranging project encompassed the Pennsylvania Healthy Corner Store Initiative, Pennsylvania WalkWorks, assessments of the Diabetes Education Program and Diabetes Self-Management Education projects, and more. Fulfillment of funding requirements involved collaboration with stakeholders across the state, development of individual evaluation plans (IEPs) for each strategy, and quantitative, qualitative and GIS-based analysis to inform policy decision makers about the replication of similar activities across various chronic diseases.
Comprehensive Asthma Control Through Evidence-based Strategies and Public Healthcare Collaboration

**Funding Source:** Centers for Disease Control and Prevention — Pennsylvania Department of Health  
**Amounts Awarded:** $64,012; $7,858  

In this multi-year project, Professor Lenhart’s research team evaluated the impact of Pennsylvania’s statewide asthma control efforts with emphasis on evaluation of the Pennsylvania Asthma Partnership (PAP), expansion of the Community Asthma Prevention Program (CAPP), and implementation of clinical, practice-based quality improvement efforts to enhance asthma care. Additional research was also conducted to highlight areas of disparity in asthma need versus asthma services and funding in order to advocate for underserved regions moving forward.

**Health Resources and Services Administration Dual Degree Program**

**Funding Source:** Health Resources and Services Administration — Geisinger Commonwealth School of Medicine  
**Amount Awarded:** $26,500  

Professor Lenhart, in collaboration with Geisinger Commonwealth School of Medicine (formerly The Commonwealth Medical College), administered the final year of a dual degree MD-MPH program aimed at promoting a clinical workforce well versed in population health needs. Medical students interested in either the Graduate Certificate in Public Health or the Master of Public Health degree took specialized courses with ESU faculty. Many are now engaged in innovative research and field-based experiences, applying their knowledge to relevant clinical and community needs.

**Evaluation Development and Assessment**

**Funding Source:** Greener Partners  
**Amount Awarded:** $8,700  

Professor Lenhart and her research team developed an evidence-based evaluation plan to assess Greener Partners’ school-based nutrition education series based on data from multiple stakeholders including students, classroom teachers, and school cafeteria staff. They then produced a summary evaluation report and presentation to Greener Partners detailing the programmatic impact of bringing innovative nutrition education to elementary school students.

Steve Shive  
*Health Studies*

**Sodium Reduction Plan: Development of a Communication Plan**

**Funding Source:** Centers for Disease Control and Prevention — Temple University  
**Amount Awarded:** $8,000  

This sodium reduction project provided assistance to the Center for Asian Health in collaboration with and support of the Center for Disease Control REACH program, a national initiative designed to reduce racial and ethnic health disparities. Professor Shive’s work sought to increase access to environments with healthy food or beverage options among Asian Americans in the Philadelphia, Pennsylvania and Cherry Hill, New Jersey Metropolitan areas.

Keith Vanic  
*Athletic Training*

**The Use of Pressure Measurement/Mapping Systems in Orthopedic Clinical Practice**

**CO-PI:** Gerard Rozea  
*Athletic Training*

**Funding Source:** FDR Major Leveraging Grant  
**Amount Awarded:** $6,500  

The orthopedic skill of applying fiberglass cast tape is an art and science. However, there is considerable consequence if it is negligently applied. Professors Vanic and Rozea used commonly applied orthopedic skills and measured the pressure mapping gradients during the application process. They also incorporated those techniques/devices to alleviate internal soft tissue pressures under the cast while still maintaining patient compliance using the TekScan F-Socket™ Pressure System, also partially funded by this grant.

Jane McDevitt  
*Athletic Training*

**Genetic Association to Concussion**

**Funding Source:** FDR Major Leveraging Grant  
**Amount Awarded:** $5,000  

Professor McDevitt’s research allowed students to participate in genetic-based lectures and laboratories, independent research studies, and to learn about the ethical issues that accompany the knowledge of an athlete’s genetic makeup. This research provided a platform for advocating for individualized medicine and educating athletes, parents, and coaches about individual athlete’s risks. If
### FDR MINI GRANTS

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
<th>Project Description</th>
<th>Amount Awarded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scott Dietrich</td>
<td>Athletic Training</td>
<td>Better understanding Functional Movement Training and Assessment for Injury Reduction in Sports</td>
<td>$899</td>
</tr>
<tr>
<td>Clare Lenhart</td>
<td>Health Studies</td>
<td>Physical Activity in Public Health Research Course</td>
<td>$748</td>
</tr>
<tr>
<td>Emily Sauers</td>
<td>Exercise Science</td>
<td>Nutritional Workshop and Conference Attendance</td>
<td>$1,200</td>
</tr>
<tr>
<td>Peng Zhang</td>
<td>Exercise Science</td>
<td>Faculty Walking and Physical Activity Initiative</td>
<td>$1,500</td>
</tr>
<tr>
<td>Co-PI: Dongjiao Zhao</td>
<td>Biological Sciences</td>
<td>Association Between Body Composition, ECG Variables, Blood Pressure, and Cardiovascular Fitness in Adolescents: A Pilot Study</td>
<td>$6,318</td>
</tr>
</tbody>
</table>

Athletes learn about their specific increased risks, better decisions can be made on sport participation (e.g., participate in contact or noncontact), which could potentially prevent further harm that is associated with repeated concussions or early return to play such as: chronic traumatic encephalopathy, depression, and cognitive deficits.

Peng Zhang worked with Professor Zhao to explore the associations between body composition measures, ECG variables, blood pressure (BP), and cardiovascular fitness in children and adolescents. Even though a correlation between obesity and abnormal cardiac conditions through electrocardiogram (ECG) have been reported in adults, little research has shown similar associations in children and youth.
## University Divisions and Affiliates

### Economic Development and Entrepreneurship
- ESU Foundation and Office of University Advancement
- Kemp Library
- Student Affairs

### External Grants

<table>
<thead>
<tr>
<th>Metric</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Awarded</td>
<td>$2,161,339</td>
</tr>
<tr>
<td>Funds Requested</td>
<td>$3,343,741</td>
</tr>
<tr>
<td>Proposals Awarded</td>
<td>14</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>21</td>
</tr>
</tbody>
</table>

### FDR Grants

<table>
<thead>
<tr>
<th>Metric</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funds Awarded</td>
<td>$1,200</td>
</tr>
<tr>
<td>Funds Requested</td>
<td>$1,200</td>
</tr>
<tr>
<td>Proposals Awarded</td>
<td>1</td>
</tr>
<tr>
<td>Proposals Submitted</td>
<td>1</td>
</tr>
</tbody>
</table>

---

*not pictured: Cynthia Nolte*
ESU FOUNDATION AND OFFICE OF UNIVERSITY ADVANCEMENT
(RICHARD SANTORO AND LIANNA DESANTIS)

Helping Hands in the Community
Funding Source: The Allstate Foundation
Amount Awarded: $1,000
This grant helped fund operating support to the university. ESU was eligible for this grant because Allstate agent Tania Kanarek has regularly volunteered to teach ESU students about safe driving.

Baseball/Softball Turf Installation Project
Funding Source: ESSA Bank & Trust Foundation
Amount Awarded: $250,000
Funding Source: The R. Dale and Frances M. Hughes Foundation
Amount Awarded: $230,000
This funding supported a collaborative community improvement project involving ESU, the ESU Foundation, Stroudsburg Little League, Inc. and Stroud Township. The enhancements, including the installation of artificial turf, expanded the usage of the Athletic Complex to include both the Stroudsburg Little League, Inc. and ESU’s NCAA Division II baseball and softball teams.

Project Stream Grant
CO-APPLICANT: ANNIE MENDOZA
College of Arts and Sciences | Modern Languages, Philosophy, and Religion (see write-up on page 12)
Funding Source: Pennsylvania Council for the Arts
Amount Awarded: $467

ESU’s Swim and Gym Program
CO-APPLICANT: MIHYE JEONG
College of Health Sciences | Physical Education Teacher Education
Funding Source: Lehigh Valley Health Network: Dr. Alberta Finch Endowment Fund
Amount Awarded: $1,000
The program started in 1977 to help provide Physical Education Teacher Education (PETE) majors an opportunity for hands-on experiences working with individuals with disabilities. Participants with various disabilities, who range in age from five to adult, receive individual instruction focusing on motor skills, socialization, and health and skill-related components of physical fitness. Each student in the PETE program is partnered with an individual with a disability. The program gives the students unique opportunities to get to know and interact with individuals with disabilities.
SHARONE JONES
Economic Development and Entrepreneurship | Workforce Development

Innovative Workforce: Bloomberg Lab
CO-APPLICANT: PATTABIRAMAN NEELAKANTAN
College of Arts and Sciences | Political Science and Economics
Funding Source: Appalachian Regional Commission (ARC)
Amount Awarded: $58,664
ESU was awarded a grant from ARC to purchase Bloomberg Professional Service licenses. The ESU Center for Research and Economic Development provided matching funds of $58,664 for furniture and technologies associated with the Bloomberg Lab. The lab will be a new innovative space where students and faculty across all colleges can learn to use Bloomberg Technology to access analytics, real-time data, market-driven financial information, and research. Students having skills associated with the use of Bloomberg Technology and Bloomberg Certificates will have a stronger competitive edge as they enter the workforce.

WednetPA
Funding Source: Pennsylvania Department of Community and Economic Development
Amount Awarded: $481,934
WednetPA training program funds are provided through the Department of Community of Economic Development. As a certified partner, ESU is responsive to the needs of Pennsylvania’s business community and administers funds to support essential skills and advanced technology training to qualified employers. The training allows companies to stay competitive in a global economy.

CYNTHIA NOLTE
Entrepreneurial Leadership Center | Economic Development and Entrepreneurship

Student Business Plan Coordinator
Funding Source: Pennsylvania State System of Higher Education
Amount Awarded: $30,000
The State System-wide Student Business Plan Coordinator, Cynthia Nolte, worked with representatives of the 14 universities to identify undergraduate and graduate students to develop business plans and ideas and to compete in the annual competition. Ms. Nolte also mentored students in entrepreneurship and encouraged innovation throughout the PASSHE universities and within Commonwealth communities.

MARY FRANCES POSTUPACK
Economic Development and Entrepreneurship

ESU Business Accelerator Expansion
Funding Source: US Economic Development Administration
Amount Awarded: $600,000
This federal award supported the fit-out of the vacant 16,000 sq. ft second floor of the ESU Innovation Center. The building, which is currently home to the Economic Development and Entrepreneurship division, also includes the Business Accelerator (BA), the Northeast Wildlife DNA Laboratory, a life sciences wet lab for early-stage companies, computer labs, a professional testing center, event venues, conference space, as well as the Office of Sponsored Projects and Research. The completion of the second floor will allow more start-up companies to join the BA and international companies to come to ESU through the J1-Visa program.

Business Accelerator at ESU
Funding Source: Ben Franklin Technology Partners
Amount Awarded: $5,000
This funding supported ESU’s Business Accelerator (BA) to maintain its operation as the university recruits new companies and continues to support entrepreneurship in our region. This support helped the BA program attract and grow client companies that would result in the creation of approximately ten jobs and the retention of 80 jobs. In addition, several student internship opportunities were created.

KELLY SMITH
Kemp Library

General Preservation Assessment of ESU’s Special Collections
Funding Source: National Endowment for the Humanities (NEH)
Amount Awarded: $5,900
Concerns related to the storage and management of the Sterling Strauser Collection and the Al Cohn Memorial Jazz Collection, in

FDR MINI GRANTS

LINDA VAN METER
Student Affairs | Counseling and Psychological Services

Psychological Issues in College Student Athletes: Investigation of NCAA ‘Best Practices’ Protocol for Pre-Participation Mental Health Screening and Assessment of Neurocognitive Aspects of Sport Related Concussion
Amount Awarded: $1,200
addition to the preparation for a move to a new building, necessitated a preservation assessment by a professional consultant trained in the care of cultural collections. The consultant surveyed the collections, reviewed policies regarding collection management, evaluated storage and exhibit areas to identify strengths and potential vulnerabilities, and recommended steps to take to ensure the longevity of the collections.

LAURA SUITS
Student Affairs | Wellness Education and Prevention

“The Warrior Way”: East Stroudsburg University’s Path to the Reduction of Underage and Dangerous Drinking

CO-PROJECT DIRECTOR: DOREEN TOBIN
Student Affairs

Funding Source: Pennsylvania Liquor Control Board (PLCB)
Amount Awarded: $39,010

ESU was awarded funding from the PLCB to reduce underage and dangerous drinking on campus and in the surrounding community. The program is comprehensive and community-centered, focusing on selected evidence-based strategies to reduce underage and dangerous drinking by university students and delaying onset of use by local at-risk youth.

DOREEN TOBIN
Student Affairs

Family Planning and STD Prevention
Funding Source: Maternal Family Health Services
Amount Awarded: $20,351

University Health Services provided ESU students with reproductive health care, including STD screening, treatment, counseling and education through the Maternal Family Health Services federal grant at no, or low, cost for students.

EXTERNAL GRANT SUBMISSIONS

ESU FOUNDATION AND UNIVERSITY ADVANCEMENT
BASEBALL SOFTBALL FIELDS TURF PROJECT
Funding Source: PPL Foundation, Amount Requested: $100,000
Funding Source: Local Share Account – Monroe County, Amount Requested: $500,000 not funded

AQUACULTURE LAB
Co-applicant: JAMES HUNT, College of Arts and Sciences | Biological Sciences
Funding Source: The Shari and Todd Nelson Family Foundation, Amount Requested: $84,766 not funded

SANOFI PASTEUR EDUCATIONAL GRANTS: SANOFI PASTEUR COMMUNITY ANNUAL SCHOLARSHIP AND ACQUISITION OF AGILENT MODEL 1290 ULTRA HIGH PERFORMANCE LIQUID CHROMATOGRAPH
Co-applicant: MARIA KITCHENS-KINTS, College of Arts and Sciences | Biological Sciences
Funding Source: Sanofi Pasteur, Amount Requested: $160,000 pending

DONNA LEITNER, Counseling and Psychological Services | Student Affairs
NCAA INNOVATIONS IN RESEARCH/PRACTICE GRANT PROPOSAL: ESU “WE CAN DO THIS BETTER”
Funding Source: National Collegiate Athletic Association, Amount Requested: $25,000 not funded

ALYSON PATASCHER, Wellness Education and Prevention | Student Affairs
IT’S ON US
Funding Source: Pennsylvania Department of Education, Amount Requested: $27,042 not funded

MARY FRANCES POSTUPACK, Economic Development and Entrepreneurship
ESU EMERGENCY PREPAREDNESS AND COMMUNITY ENGAGEMENT PROJECT
Funding Source: Local Share Account – Monroe County, Amount Requested: $497,177 not funded

GENERATOR AND INFRASTRUCTURE FOR ESU’S MEGASHelter AT KOEHLER FIELDHOUSE
Funding Source: Pennsylvania Emergency Management Agency, Amount Requested: $360,000 pending

KELLY SMITH, Kemp Library
Digitizing Open Reels and Audio Cassette Tapes from the Al Cohn Memorial Jazz Collection
Co-applicant: MATTHEW VASHLISHAN, Kemp Library
Funding Source: Council on Library and Information Resources, Amount Requested: $4,317 not funded
The National Science Foundation awarded ESU a $4 million dollar grant from the S-STEM (Scholarships in Science, Technology, Engineering, and Mathematics) Program for the project entitled Clear Path to Bachelor’s Degree Completion Scholarships.

This project is the culmination of more than three years of work by Drs. Jones-Wilson, Green, and Carducci who took action after observing that too many students from community colleges were transferring to the university with numerous college credits but not enough of the right courses in their major to enable them to graduate on time.

The overarching goal of Clear Path is to increase STEM student retention and timely baccalaureate degree completion among community college STEM transfers to ESU. Students who meet a certain criteria are selected and awarded scholarships to become Clear Path Scholars. Priority is given to female and underrepresented student populations.

Possibly the most critical component of this project is the investigators’ exploration and evaluation of the role that specified developmental mechanisms, like academic grit and academic behavior, play in assuring students’ academic success. When examining variables associated with student success in STEM, the investigators have identified five high impact practices, supported by 14 cohort activities that will increase student retention and baccalaureate completion rates. These practices and activities build upon the applied psychology literature dedicated to increasing college student success and have been chosen based on several projects completed at the faculty and university levels.

Through these high impact practices and cohort activities, ESU will increase student success. Moreover, through formal statistical evaluation, the investigators will further understand the interaction among the high impact practices, the cohort activities, the specified developmental mechanisms, and college level academic achievement.

As of June 30, 2017, the end of the 2016-2017 fiscal year, six students received $13,193 in scholarships at the partner community colleges, with many more in the pipeline.
In spring 2017, the Office of the Provost in conjunction with the Office of Sponsored Projects and Research launched the Summer Undergraduate Research Experience grant program (S.U.R.E.). This program is designed to provide funding to support undergraduate students to complete research with a faculty member as their mentor over the summer months. The S.U.R.E. program was modeled after similar funding initiatives implemented at other State System universities and served as a critical step in creating a more robust culture for undergraduate research at ESU.

The S.U.R.E. committee received 16 applications, totaling $29,099.70. Of this 16, seven applications (44%), were funded in the amount of $12,646.80. The seven faculty/student partnerships represented six academic departments or divisions of ESU: academic enrichment and learning, art + design, biological sciences, mathematics, psychology, and the Northeast Wildlife DNA Laboratory.

The core criteria for awarding the grants was the strength of the applicant in demonstrating the degree to which the project was in line with language from ESU’s Strategic Plan Students First: Innovate ESU. The successful applications clearly revealed the high-impact experience for the student researchers which included hands-on work in the field and the laboratory, immersive research in a foreign country, and opportunities to publish research findings.
MICHAEL J. BURNS  
*Computer Science & Computer Security, Junior*  
**FACULTY MENTOR: OLIVIA CARDUCCI**  
*Mathematics*  
**Amount Awarded:** $2,000

**Testing the One-One Matching Algorithm for Stable Matching Problems**  
This opportunity allowed Michael to write a computer program that would replicate characteristics of the National Resident Matching Program used by graduating medical students.

---

JESSICA BURNS  
*Biology, Junior*  
**FACULTY MENTOR: HOWARD WHIDDEN**  
*Biology*  
**Amount Awarded:** $1,291

**Surveys for the Federally-Threatened Northern Long-eared Bat in Northeastern Pennsylvania**  
Jessica and Professor Whidden spent the summer in the field, observing threatened bat populations and will use their findings to make recommendations to state and federal agencies to help conserve the threatened bat species.

---

MYLA KEILING  
*Biology, Junior*  
**FACULTY MENTOR: JENNIFER WHITE**  
*Biological Sciences*  
**Amount Awarded:** $1,600

**Gross and Histological Study of Stomachs in Small Mammals**  
Myla and Professor White dissected and studied the morphological differences in rodent and insectivoran stomachs. They used this research to offer preliminary support for a hypothesis stating that there is an association between the diet and stomach structure of these small mammals. Myla and Professor White plan to publish their study.

---

JOHNA PALLADINO  
*Psychology, Junior*  
**FACULTY MENTOR: BONNIE GREEN**  
*Psychology*  
**Amount Awarded:** $2,000

**Measuring Implicit Attitudes Void of Contamination from Social Desirability**  
Johna proposed to make revisions to a scale used to measure implicit attitudes void of contamination from social desirability. She proposed to collect data from 120 students in an attempt to better measure these attitudes in people. This research project was postponed.

---

KRISTINA ROY  
*Biology, Junior*  
**MENTOR: NICOLE CHINNICI**  
*Northeast Wildlife DNA Laboratory*  
**Amount Awarded:** $2,000

**Prevalence of Larval Trematodes in Freshwater Gastropods of Lentic Sites in Northeastern Pennsylvania**  
This grant provided the opportunity for Kristina to work in the field to collect samples and measure environmental conditions to determine the abundance of larval trematodes within the species of gastropods.

---

KATELYN SHULZE  
*Communication, Junior*  
**FACULTY MENTOR: KELLY MCKENZIE**  
*Department of Academic Enrichment and Learning*  
**Amount Awarded:** $1,755

**The Impact of Memorable Messages on Perceptions of Gender and Sexism in the US and Sweden**  
Katelyn and Jillian used the funding to gain a deeper understanding of how 18-22 year old college students’ beliefs toward women differ in Sweden, a country with more gender parity in comparison with the United States.
RACHAEL SWARTZ  
Art + Design, Junior  

FACULTY MENTOR: JOCELYN KOLB-DEWITT  
Art + Design  

Amount Awarded: $2,000  

Wheelchair for Scoby, the One Legged Duck  
A custom built wheelchair was created for a one-legged duck. This was a great opportunity for the student to gain hands-on experience in using a 3D printer to create a prosthesis.

EVELYN BARONE  
Art + Design and Biology, Senior  

GABRIELLA BREIDOR  
Biology, Junior  

ALYSSA PRIEST  
Biology, Sophomore  

KRISTINA TURTURIELLO  
Art + Design, Senior  

FACULTY MENTORS: DARLENE FARRIS LABAR  
Art + Design  

JAMES HUNT  
Biological Sciences  

Amount awarded: $1,750  

Bioscope Aquarium  
The biological sciences and the art + design departments collaborated with four students to work on a unique fish-only aquarium with 3D printed aquascaping for the Schisler Museum. The students researched and designed a state-of-the-art Delaware River biotope showcasing live fish, a painted backdrop, replicas of ecologically significant water plants, and the river bottom.
Where in the world...

James Hunt: (Cruise) Subarctic/North Pacific Ocean

Emily Sauers: Denver, Colo.


Jerry Ross: San Luis Obispo, Calif.

Michael Gray: Gettysburg, Pa.

Liz Gibbons: New York, N.Y.


Darlene Farris-LaBar: San Paolo, Brazil
...have grants taken them?
STUDENT RESEARCH AND CREATIVE ACTIVITY SYMPOSIUM

The 2017 Student Research and Creative Activity Symposium was held on April 10 in the Hoefner Science and Technology Center at ESU. The keynote speaker was Corey Dolgon, Ph.D., a sociology and service learning expert. Dr. Dolgon came from Stonehill College in Massachusetts where he is the Director of the Office of Community-Based Learning. Dr. Dolgon’s talk was focused on examining political and social challenges encountered in scholarly research and the application of knowledge to address these problems.

This year 242 students presented at the symposium and of this, 206 were undergraduates and 32 were graduate students. Presentations included topics on 3D design, gender and women’s studies, rhetoric, communications, sound design, healthcare, and much more.

The Research and Creative Activity Symposium helps to enhance student experiences by creating a space where students actively learn by applying research and testing methods in real world contexts. ESU’s Symposium is proud to provide a platform where undergraduate and graduate students can showcase their research and findings.

Art + Design
Andreas Alomar
Amanda Amodeo
Evelyn Barone
Aisling Kerr
Malcolm Law
Jessica Lepri
Romario Levy
Patrick McPartland
Ashé Pope
Jessica Ritter
Alisha Rohrer
Kyla Scott
Sean Smith
Rachael Swartz
Kristina Turturiello
April Watkins
Morgan K. Weissbach

Athletic Training
Branden Green
Christopher Lee
Stephanie LoSchiavo

Biological Sciences
Kristine Bentkowski
Andrew Bischer
Jessica Burns
Kacie Chern
Vanessa Gomez
Chengez Ali Hussaini
Eric Januszkiewicz
Myla Keiling
Lian Miodzienski
Gianeli Ortiz
Samantha Pelletier
Kristina Roy
Joseph Schell
Brandon Swayser
Alex Tufano

Biotechnology
Danielle Prestifilippo

Business Management
Darrell Costenbader
Monica Harrison
Noor Jabri
Justin Moran

Chemistry
Nathanaelle Dubreuil
Samantha Miller
Phillip Reinhardt
Aarshi Singh

Communication
Judaha Amoroso
Frankie A. Barrett
Vincent Gervasi
Madison Gorman
Amber Jadas
Jasinee S. Johnson
Natalie Keller
Natasha Punch
Nicholas Russo
Henry Schecker
Kelley Anne Stuetz
Adriana Torres
Jennifer Wolkerton

Communication Sciences & Disorders
Kerry Adams
Jaclyn Kavanagh
Jennifer Price
Julie Rehrig
Morgan Barry Seibert

Computer Science
Joshua Brewster
Brandon Hildago
Arie Miller
Bose Omo-Ekpadi
Joseph Ross
Joshua Soberg
Matthew Szczeplewski
Pu Tian

Alexander White
Criminal Justice
Tiffany Bower
Jenna Bretz
Mario D’Aniello
Theresa Gehring
Quadira Gregg
Abigail Hawk
Jessica Hetrick
Paige Stuart
Kylie Tausendfreundt
Amanda Weise
Reghan Weller
Morgan Wise

Digital Media Technologies
Joseph T. Dorsch
Samantha Washington

Early Childhood and Elementary Education
Yadira Dejesus
Brittany Gelmine
Lacey Haldeman
Shea Neal

English
Devin Cetnar
Margaret (Peggy) Diaco
Lydia Hess
Ariel Mickey
Nia Scott
Janice Tieperman

Exercise Science
Eric Cahill
Kelsey Heston
Zachary Kager

Ariel Tucci, Psychology major, stands proudly in front of her poster that explains her research Generational Gender Differences Regarding Communication
From left Andreas Alomar, Kayla O’Connor both art + design majors, and Romario Levy, digital media technologies major, interact with an augmented reality experience entitled Under the Sea which was designed using 3D software.
ENTREPRENEURSHIP AND INNOVATION

We are proud to celebrate the entrepreneurial initiatives and innovative programs that continue to inspire and influence the learning experience at ESU. The University encourages and supports these efforts which include faculty-developed small businesses, the inclusion of students and staff in the Business Accelerator, the development of innovative learning spaces, and the infusion of entrepreneurial experiences and opportunities across all disciplines. As a university that puts students first, ESU provides students with engaging opportunities to network with entrepreneurs, faculty, business professionals, and alumni who serve as mentors and assist students in exploring future career opportunities.

PRESIDENT’S DISTINGUISHED ENTREPRENEUR SPEAKER SERIES

The President’s Distinguished Entrepreneur Speaker Series brings alumni entrepreneurs to ESU’s campus to talk about the various challenges they’ve faced in their careers as well as life experiences and educational opportunities that have guided them on their journey. The Series premiered on Tuesday, April 4, 2017 with ESU alumnus and founder of Philly Pretzel Factory, Dan DiZio, class of 1995. DiZio’s journey started at the age of 11, when he was successfully selling pretzels on a busy intersection in Philadelphia and had neighborhood kids working for him in multiple areas of the city. In 1998, after graduating from ESU, DiZio and his college roommate, Len Lehman, decided to open the first Philly Pretzel Factory in the Mayfair neighborhood of Northeast Philadelphia. By the second year, the store’s success led to potential franchisees wanting to get involved. In 2004, he started Soft Pretzel Franchise Systems, Inc., franchising the Philly Pretzel Factory Brand across the Philadelphia region, and now expanding outwards from Philadelphia into 14 states. With over 150 locations, Philly Pretzel Factory is the world’s largest Philly-style pretzel bakery.

GRADUATE STUDENT WINS BUSINESS PLAN COMPETITION

Blaise Delfino ’14 M’16, an ESU master’s degree candidate from Bethlehem, Pa., earned first place in the collegiate sector of the TecBRIDGE Business Plan Competition on April 27, 2017 at Mohegan Sun at Pocono Downs. Delfino won a prize valued at $110,000 in cash and in-kind services to further develop his company Fader Plugs LLC which developed the world’s first patent-pending adjustable earplugs. The design of the earplugs allows the wearer to adjust noise levels without taking the plug out of the ear. Blaise is working in collaboration with Starkey Hearing Technologies, a world leader in advanced hearing solutions, in developing his technology. Delfino, also a musician, believes the product will resonate with concert goers and those in the music industry. The company is located in the ESU Innovation Center as part of the Business Accelerator program.
ESU ALUM SPENDS MONTHS IN THE SOUTH POLE

Jonathan Weber is a 2014 graduate of ESU with a degree in computer science and computer security. He is a serial entrepreneur who has started multiple high-tech companies based out of the ESU Business Accelerator. Weber lives the lifestyle of a “digital nomad,” traveling abroad multiple times a year and managing his companies remotely via the Internet. In the past five years, he has visited or lived in almost 70 countries on all seven continents. This past year Weber spent four months living and working as a communication and information technology specialist at the Amundsen-Scott South Pole Station in Antarctica with the United States Antarctic Program. Throughout his stay at the most remote and isolated scientific outpost in the world, Weber experienced Antarctic conditions including 24-hour daylight and temperatures as low as minus 60 degrees Fahrenheit with wind chill down to minus 90.

WILDLIFE DNA LAB FEATURED IN FORENSIC MAGAZINE

ESU’s Northeast Wildlife DNA Laboratory was featured in the April 2017 issue of Forensic Magazine in the article “How a Small School in Pennsylvania Became the Hub of Wildlife Forensics.” The review highlighted several wildlife forensic cases analyzed by the Lab including the 2014 fatal black bear attack that occurred in New Jersey involving a Rutgers University student. The Lab, founded in 2005, has evolved into a nationally recognized scientific facility for its leadership in wildlife forensics. The Lab’s mission is to process evidence from wildlife cases and provide expert testimony, carry out multidisciplinary research and education with a strong connection to outside agencies, and provide internship opportunities for both undergraduate and graduate students. Staff in the Lab perform DNA extraction, amplification of specific genes, as well as DNA sequencing of mitochondrial and nuclear genes. The article explains, “An animal may be linked to evidence because the animal is the victim, the perpetrator or even the witness. All evidence discovered by the Northeast Wildlife DNA Laboratory is admissible in court.” The Lab is also involved with a number of ongoing wildlife management and genetic studies with fish and game commissions for general wildlife conservation initiatives.

BLOOMBERG TERMINAL COMES TO CAMPUS

“Sitting on the desks of 325,000 of the world’s most influential decision makers, the Bloomberg Terminal is a modern icon of financial markets.”-Bloomberg.com

ESU was awarded a grant from the Appalachian Regional Commission (ARC) in the amount of $58,664 with matching funds from the ESU Center for Research and Economic Development to purchase twelve Bloomberg Professional Service licenses. The Bloomberg Lab will open in Spring 2018 in Gessner Hall, with two terminals located in the ESU Innovation Center. The Lab will enhance ESU’s commitment to Students First, Innovate ESU, specifically Goal 3: Innovation and Entrepreneurship. In addition, the technology will create a pipeline of workforce-ready industry employees prepared to thrive and transition into competitive careers. The Bloomberg terminal is a computer software system that enables its users to monitor and analyze real-time global financial market data. Students and faculty across all colleges can learn to use Bloomberg Technology to access analytics, real-time data, market-driven financial information, streamlined trading strategies, and comprehensive reference data. Students having skills associated with the use of Bloomberg Technology and Bloomberg Certificates will have a stronger competitive edge entering the workplace.
ENTREPRENEURSHIP AND INNOVATION

SCHISLER MUSEUM OF WILDLIFE & NATURAL HISTORY AND McMUNN PLANETARIUM
ESU’s Schisler Museum of Wildlife & Natural History and Mcmunn Planetarium (SMMP) was designated as a National Geographic MapGuide destination for the Scenic, Wild Delaware River region, achieved Google top results status in web searches, and was accepted as a Business Listing on the Trip Advisor Travel Site just this year. The SMMP has seen an increase in the number of students using the museum for drawing courses and the art + design faculty have brought in a local wildlife illustrator as an advisor to almost all drawing sessions, further networking SMMP among the community. Additionally, plans are underway for a 3D printed aquarium landscape that combines art and science and seeds additional learning opportunities. In an effort to expand SMMP’s visibility on campus, SMMP staff and students participate in campus events such as student resource and employment fairs, orientation, and campus tours, and provide committee leadership for Earth Day, arboretum tours, and 125th anniversary planning. Additionally, SMMP has increased its community visibility by participating in awareness events including Run for the Red, NCCC-Monroe Family Resource Night, and others.

SITE (SCHOLARSHIP, INNOVATION, TECHNOLOGY AND ENTREPRENEURSHIP)
Harnessing the power of collaboration and creativity in a concerted effort to facilitate all campus initiatives, big and small.

SITE consolidates the efforts of all ESU constituents to make scholarship, innovation, teaching, application of new technology, and entrepreneurship easier, more efficient, and cost-effective. The SITE committee members endeavored to pull together departments on campus who represent and are engaged in activities relating to the mission. SITE incorporates three unique physical spaces located in Stroud Hall, rooms 107, 404, and 405 and a web-based center that answers the student, faculty, community, and staff question of “How do I. . .?” and “What if. . .?” As a crucial component of the next three years of strategic planning, through the Office of the Provost, SITE will expand its unique offerings while also launching satellite SITES around campus and into the community.

Entrepreneurship Across the Colleges
The Entrepreneurship Across the Colleges grant program supports faculty initiatives that infuse entrepreneurial topics and activities into the classroom. The funding provides ESU with the opportunity to create a robust entrepreneurial culture that allows students across all colleges to experience the positive impact of entrepreneurship. Entrepreneurship Across the Colleges encourages entrepreneurial approaches in instructional delivery or curriculum and/or using innovative techniques to inspire critical thinking in and outside of the classroom. For the 2016-2017 academic year, faculty, staff and students used awards from the program for projects in mural art, wine-making, the development of a natural tick-repellant, the purchase and educational use of a drone and virtual reality glasses, and the development of language learning apps.
ESU BUSINESS ACCELERATOR WELCOMES NEW COMPANIES
The Business Accelerator welcomed three new early-stage companies to the program – Fader Plugs, LLC, Solid Dynamics, LLC and Game Face Products - bringing the total number of companies participating to 20 including 18 early-stage companies, one mentoring company, and one university initiative. These companies employ 33 full-time positions and nine part-time positions representing a 22% increase over fiscal year 15-16. A total of 54 student interns/externs were engaged with Business Accelerator companies, an 86% increase over the previous year. Additionally, Business Accelerator companies generated $2.574 million in gross revenue compared to $2 million in FY15-16.

NEW MIND DESIGN
New Mind Design (NMD) continues to flourish and expand its clientele base. The student-run design agency services ESU organizations and local, regional, and national businesses. NMD’s client-outreach efforts have resulted in a pipeline of customers including ESU’s Department of Athletics and the Borough of East Stroudsburg. NMD recently acquired a silver bullet dye cutting machine that has the capacity to print a multitude of patterns and cut paper to precise specifications, allowing designers to have increased flexibility with the creative process. Additionally, NMD began to incorporate 3D design into their portfolio through the state-of-the-art 3D printers on campus; including 3D head scanning and product design. NMD was the inaugural recipient of the Student Innovator and Entrepreneur Recognition Award. Students from NMD and the G3D 3D Printing Stratasys Super Lab presented at Pennsylvania’s State System of Higher Education Board of Governors meeting in April which showcased entrepreneurial and service learning activities involving student engagement within the community. The design students presented examples of their work and did a 3D scanning demonstration.

G3DESIGN LAB/STRATASYS SUPER LAB
ESU had the honor of being named one of the first three universities in the world to have a Stratasys J750 3D printer. ESU joined Columbia University and New York University in utilizing this cutting-edge technology in the classroom and earning the prestigious designation of Stratasys SuperLab. ESU’s G3Design Lab was initiated by President Welsh and developed and managed by the art + design department: Joni Oye-Benintende, chair and by professors Darlene Farris-LaBar, and Jocelyn Kolb-DeWitt. The purchase of the printer was made possible by generous donations from the R. Dale and Frances Hughes Foundation as well as the Hays Warner Trust. During FY 16-17, the art + design department received a PA Council on the Arts Partners in Art grant which supported the CONFLUX workshop in 3D design and printing. Faculty and students continue to work with the local community to design, print product prototypes and also provide lab tours and 3D printing workshops.
CREATIVE EXHIBITS

DARLENE FARRIS-LABAR
Art + Design

3D Pioneers: Pushing the Boundaries
Erfurt, Germany, June 2017
This international event covered a range of verticals and was aimed for designers who are breaking new ground in the field of 3D printing, taking into account the complete value-added system of additive technologies and the understanding of the key trends in the industry. Professor Farris-LaBar received third place for the interior 3D design of a poppy flower.

A Planet that Dreams: A Modern Day Explorer
Combining Art, Environment and 3D Printing
Eckert Gallery, Millersville University, Millersville, Pennsylvania, September 2016
This exhibition was a solo show at Millersville University. Prior research resulted in unique artwork that pushes the limits of 3D printing technology while at the same time unveiled an intimate perspective of living organisms in nature through color, texture, and movement.

DAVID MAZURE
Art + Design

Corpus Illuminata 6: An Anatomic Interpretation
Tanget Gallery, Detroit Michigan, August 2016
Corpus Illuminata consisted of equal parts exhibition, academia, and bazaar. The juried exhibition portion featured over 90 anatomical interpretations.

Tomorrows
Athens Onassis Cultural Center, Athens, Greece, May 2017
The Tomorrows international exhibition focused on the multiple aspects the future presents today. It featured works by artists, architects and designers who tell stories about tomorrow’s possible worlds, discussing the fears and hopes of their inhabitants.

Radiation: The Borderless Anthropocene
Leicester University at the International Environmental Communications Conference, United Kingdom, June 2017
An exhibition installation at one of the largest gatherings of environmental communicators and researchers from around the world, showcased the collaborative work of radiation-induced mutations in insects and animals. Professor Farris-LaBar’s work explored how visual communication can aid in studying the impact of radiation on flora and fauna, as well as biotic interactions in general.
The New Mimesis, An exhibit in partnership with Nurture Nature Center
SciArt Center, Easton, Pennsylvania, February—April 2017
This collaborative exhibit from Nurture Nature Center and SciArt Center featured works from various artists who mimic what is found in nature.

JONI OYE-BENINTENDE
Art + Design

Art of the State Juried Exhibition
Art of the State featured 123 artists from the state of Pennsylvania selected from over 1,700 submissions. Professor Oye-Benintende’s “Ancient Scribe” clay sculpture was selected for third prize in the sculpture category.

CHRISTOPHER DOMANSKI
Theatre

Hairspray!
Ohio Valley Summer Theater, Athens, Ohio, April—June 2017
Through research, concept drawing, detailed technical drawings, and final color elevations, Professor Domanski provided the scenic design for the musical HAIRSPRAY! This process started in April with creative concept meetings with the director and the other design members.
BILL BROUN  
*College of Arts and Sciences | English*

**Night of the Animals**  
*Published by HarperCollins, 2016*

Named a Best Book of 2016 by Slate

“A story as wildly moving and singular as an animal’s eyes in the dark.”

– The New York Times

In this imaginative debut, the tale of Noah’s Ark is brilliantly recast as a story of fate and family, set in a near-future London. Over the course of a single night in 2052, a homeless man named Cuthbert Handley sets out on an astonishing quest: to release the animals of the London Zoo. When he was a young boy, Cuthbert’s grandmother had told him he inherited a magical ability to communicate with the animal world—a gift she called the Wonderments. Ever since his older brother’s death in childhood, Cuthbert has heard voices. These maddening whispers must be the Wonderments, he believes, and recently they have promised to reunite him with his lost brother and bring about the coming of a Lord of Animals . . . if he fulfills this curious request.

“Night of the Animals” is an enchanting and inventive tale that explores the boundaries of reality, the ghosts of love and trauma, and the power of redemption. – HarperCollins

SANDRA ECKARD  
*College of Arts and Sciences | English*

**Comic Connections: Analyzing Hero and Identity**  
*Published by Rowman & Littlefield, 2017*

“Comic Connections” is designed to help teachers from middle school through college find a new strategy that they can use right away as part of their curricular goals.

Each chapter has three pieces: comic relevance, classroom connections, and concluding thoughts. This format allows a reader to pick and choose where to start: theory and background information, ready-to-use classroom activities, or rationale for study.

This text is the first in a series of books on teaching with comics, and its focus is to showcase heroic traits in popular comic characters while offering a scholarly perspective on how to analyze character and identity in ways that would complement any literary classroom.