

Stetson Undergraduate Research Committee
Annual Report
May 11, 2019

Dr. Noel Painter, Provost
Dr. Thomas Farrell, Interim Dean, CAS
Stetson University

Dr. Painter and Dr. Farrell:

On behalf of the Undergraduate Research Committee, I submit to you an appraisal of the Stetson Showcase and the Stetson Undergraduate Research Experience for 2018/9.

The Undergraduate Research Committee that reviewed SURE Grant applications and recommended the successful candidates, as well as organized Showcase on April 16, 2019, consisted of Dr. Kimberly Reiter (Chair), Dr. Melissa Parks, Dr. David Schmidt, Sidney Johnston, Dr. KC Ma, Dr. Kevin Riggs, Jean Wald, Dr. John York and Dr. Ken McCoy. There was also important assistance from Mary Bernard, administrative assistant in the Department of History and from the three interns engaged to learn how to run such an event, Geneva Alpert, Kenna McFall and Sarah Mullins.

Showcase

The Stetson Showcase has become one of the University's most nationally distinctive events. In short, this year Showcase:

1. Involved over 280 students in various presentations, poster, oral, arts, digital arts, business projects and music performance. The event, for which classes were cancelled, featured 219 daytime presentations, including six Junior Music Recitals, seven Tutorial Honors presentations and 26 Freshman Honors Presentations. Only one student was unaccounted for, but it turned out he had food poisoning, and did not know to tell the moderator. 254 cultural credits were awarded over all events. Over 400 forms were submitted for cultural credit.
2. Had student representatives from almost every college and school, including three students from the School of Law, supervised by Dr. James Fox.
3. Included a very successful venue coordinated by Dr. KC Ma and Dr. John Tichenor in the School of Business Administration (SOBA). The session featured seventeen presentations, including several projects that had won or placed nationally in various competitions.

With four exceptions, the judges this year were recruited from the Stetson community, the exceptions being Dr. John Wilton, two guests from the FIEA Program at the University of Central Florida, a respected local patron of the arts and the retired former Vice-President of R&D for 3M, an alumnus of Stetson.

Judges:

Oluwaseun Ademoye, 3D Modeler, University of Central Florida
Dr. Elizabeth Boggs, Director of Career and Professional Development
Dr. Isabel C. Botero, Assistant Professor of Family Enterprise and Entrepreneurship
Jennifer Certo, Executive Assistant to the Vice President of Campus Life & Student Success
Dengke Chen, Assistant Professor of Digital Arts
Jennifer Corbin, Library Director of Public Services and Assistant Professor
Barbara Costello, Associate Professor/Government Information & Research Librarian
Dr. Laura Crysel, Assistant Professor of Psychology
Dr. Michael Eskenazi, Assistant. Professor of Psychology
Dr. Christopher Ferguson, Professor of Psychology
Dr. Sarah Garcia, Assistant. Prof of Psychology
Dr. Torrence Gill, Visiting Assistant Professor of Biology
Dr. Antonio Golan, Visiting Assistant Professor of Communication and Media Studies?
Terry Grieb, Assoc. Professor Emeritus of Instructional Media
Dr. Lua Hancock, Vice President, Campus Life and Student Success
Dr. Resche Hines, Assistant Vice President of Institutional Research & Effectiveness,
Dr. John Horn, Vice-President (ret.) for Research & Development, 3M
Laura Kirkland, Associate Professor, Catalog Librarian
Dr. Holley Lynch, Assistant Professor of Physics
Chris Roda, FIEA Technical Art Director, University of Central Florida
Dr. Kirk Roberson, Brown Visiting Assistant Professor of Health Science
Dr. Gilbert Seigworth, physician (retired)
Dr. Rajni Shankar-Brown, Associate Professor and Jessie Ball duPont Chair of Social Justice Education
Dr. Peter Smucker, Assistant Professor of Music Theory
Dr. Ram Subramanian, Professor of Leadership
Dr. Benjamin Tanner, Assistant Professor of Environmental Science and Studies
Dr. Ranjini Thaver, Professor of Economics
Dr. Areti Vogel, Visiting Assistant Professor of Management
Dr. Jessica West, Assistant Professor of Finance
Dr. John Wilton, Artist, Stetson Street Studio
Dr. Daniil Zavlunov, Assistant Professor of Music History
The Maris prize winners and runners up are also attached to this document.

The library faculty who volunteered should be applauded and commended for their dedication to the Showcase idea, and their exemplary evaluations. Also thanks to Dr. and Mrs. John Horn, who funded light snacks and drinks for the judges at each venue. It was very much appreciated. One of the judges, Dr. Gilbert Seigworth, had to be replaced at the last minute due to sickness. A faithful member of the judging panel for ten years Dr. Seigworth, a retired physician, died April 23 of heart complications and will be sorely missed at Showcase. Two judges were assigned to each of poster, presentation, and music venues, while four judges each were assigned to the arts venue to accommodate the two guests from the University of Central Florida. Thanks to Dr. Nathan Wolek for organizing that association.

Showcase was made possible by the strong contributions from the Department of History Administrative Assistant, Mary Bernard, and the Showcase Interns Geneva Alpert, Kenna McFall and Sarah Mullins. They helped plan session, proofread, managed catering, rounded up cultural credit stampers, and monitored all the sessions. They worked as a team, creating a smoothly run Showcase, but also learned the pitfalls of conference management.

The Keynote Speaker was Lonn Lanza-Kaduce, Professor of Criminology and Law at the University of Florida. An expert in the intersection of law and society, Dr. Lanza-Kaduce is considered one of the stars of the UF Law Program, and was mentor to Dr. Sven Smith, who suggested him to the committee. Dr. Lanza-Kaduce's talk, "Epistemologies of Ignorance in Law", was a smash hit. It was lucid, intellectual, challenging and provoked good questions from a mixed audience of students. He accepted an honorarium from the Grady Ballenger Lectureship Fund established in honor of the previous dean by the College of Arts and Sciences Board of Advisors.

The choice of Keynote Speaker was influenced by two factors. First, as Showcase entered its twenty-first year, it seemed appropriate to celebrate its coming of age in the theme "Rites of Passage", a sociological term that begged for a sociologist to be speaker. Second, Stetson saw the passing of Dr. Charles "Chuck" Vedder, professor emeritus of Sociology, in summer 2018. Unofficially, the program was dedicated to Chuck, and the committee asked the Department of Sociology to come up with a name. The Department was pleased and honored to do so in Chuck's memory, and I am grateful To Dr. Sven Smith for his excellent recommendation.

To celebrate the Rites of Passage theme, the Program was illustrated with historic photographs from the Stetson Archives and Yearbook collection. The photographs were carefully selected to show Stetson students from 1892 until the present engaged in the research, rehearsals, campus life and performances that have marked student rites of passage at Stetson for the past 120 years. The posters and cover art "Rites of Passage" was created by Colette Cacciola ('19) with inspiration from 1925 Stetson Yearbook watercolor showing the pathway to success.

New Directions:

Showcase broke no notable new grounds this year, but did have one last minute frustration. Last year we obtained the rights to an Android app, and were set up to have an Apple app this year as well. The day before Showcase, we were informed that Apple was doing a second review, and would have the app up by the beginning of May. We are hoping hat all bugs will be out for full apps next year. In anticipation that apps would be in use this year, however, we only printed 100 short programs, and almost ran out. Fortunately, most students downloaded from the Stetson website ahead of time.

Finances:

Showcase was allotted \$5400 by the university, plus a Keynote Honorarium of \$2000 from the CAS Board of Advisors. Rick Tysor should be contacted for the exact expenditure sheet. A precise expenditure cannot be given as at the time of this report (May 11, 2019) as the expenditure sheet remains incomplete. Many thanks are also due to Dr. Richards for her active interest in promoting the day beyond the immediate Stetson community, and sponsoring the very

successful post-presentation champagne reception in honor of the 2019 SURE Scholars in the Nemec Courtyard.

The Future Goals of Showcase

After careful discussion, the Committee believes the goals of Showcase have been met at this time. We do not want to grow the event in numbers, as we wish to preserve this event as the best of Stetson's research. Only a few suggestions have been made:

1. Extend invitations to the graduate and MFA students to present, but in a separate venue and without a cash Maris Prize.
2. Establish a clear timetable at of Maris Prize disbursement following Showcase. At the writing of this report, I am still receiving inquiries as to when the monies will be distributed and I have no answer to give them.
3. Keep the Undergraduate Research Committee as constituted in 2018-19 intact until the 2020-2021 year before going to term rotations. This is to ensure that the first Showcase the new President has the opportunity to see as President will run smoothly under expert hands. The URC feels very strongly about this two-year extension and understanding, as Showcase is one of our signature events, and we want to start the President's exposure to our undergraduate research programs as brilliantly as possible.
4. After that the senior members of the Undergraduate Research Committee will have compiled a guidebook for the next generation of undergraduate leaders and can step down in the knowledge that Showcase is in good hands. We do not necessarily want to fossilize the event, but we can make the transition easier with such a guidebook

SURE

All students awarded a 2018 SURE Grant completed their research. Linsey Hughes graduated in December and did not present at Showcase. John Levee was presenting at the British Council for Undergraduate Research and had a waiver.

Jessica Algieri presented her research at Stetson Showcase and as a CLaSS featured speaker. She also presented at the National Conference for Undergraduate Research. Following Graduation she plans on working locally in DeLand, hopefully at Stetson for now, but eventually wants to open a Flower Shop and Tea Room.

Riley Bibaud presented her SURE research as a paper talk at the American Association of Geographers in Washington D.C., and at Showcase as a poster. She hopes to attend graduate school in the marine conservation field.

Nathan Bodger presented at Stetson Showcase, the SECSOR Conference and at the National Conference for Undergraduate Research. He will be pursuing a career in international environmental law. While accepted to four schools of law, he is hoping to attend Harvard,

Columbia or NYU. Meanwhile he has applied for several jobs as a litigation assistant with various non-profit organizations.

Colette Cacciola presented her work at the Phi Alpha Theta History Honors Society Regional Conference in Jacksonville, and at the Stetson Showcase. After a gap year she is considering the NYU graduate program in cultural journalism.

John Levee presented at the Florida Undergraduate Research Conference, the National Council for Undergraduate Research, the British Conference for Undergraduate Research in Cardiff (Wales) and the highly selective World Congress for Undergraduate Research in Oldenberg (Germany). Using a second SURE Grant, he will continue his research in octophonic acousmatic composition in 2019/2020.

MacKenzie Nalven will be completing two internships over the summer: an organizational development internship at Moffitt Cancer Center and human resources internship at Coca-Cola Beverages Florida. After graduating next year she plans to attend graduate school for either organizational psychology or industrial-organizational psychology.

Riley Reynolds presented at Stetson Showcase (April 16th) and the Southeastern Section of the American Physics Society in Knoxville, TN. She will be using techniques and results from her SURE work for her senior research.

George Ridgeway presented at Stetson Showcase and the American Physical Society (APS) Southeastern Section conference which was also a poster session. He will work towards his pilot's license through AFROTC, and enter the Air Force as an officer in two years. After that he hopes to pursue a doctorate.

Chelsea Seaver presented her research at the 2019 Florida Undergraduate Research Conference and the 2019 Stetson Showcase. She was also chosen to present her work to the Alumni at the 2019 Leadership Stetson program, and the College of Arts and Sciences Board meeting. She is developing a research proposal to build and expand the work she accomplished during in her SURE work to incorporate into her senior thesis.

This year thirteen students were awarded a Summer Research Grant. One student declined after receiving a FIEA Grant and one other student, working as a partner on a co-authored SUE application, declined to take an internship at a prestigious laboratory this summer. The names, titles and mentors of the eleven students who accepted SURE funding are listed in Appendix Two. Total expenditures are in a separate document. The Committee met as a group after reading the applications through shared files and each submitted scores for aggregate totals. The grants were generously funded by Palm Beach Community Trust, the Prat Undergraduate Research and Creativity Fund the Farmer- Hartke Undergraduate Research and Creativity Fund, the College of Arts and Sciences Undergraduate Research Fund and the Frueauff Foundation. The students were awarded \$34,950.00 in total, including \$6,540.00 for faculty mentors. Five students were awarded an additional \$500 for travel needs. There were five Frueauff scholars. John Levee became the first student in the SURE program to receive back-to-back funding for

the same project, a study that awarded him a coveted spot at the May 2019 World Congress. Three applications were denied funding because of much lower scores. All the students will be required to present at the 2020 Showcase.

The Committee is grateful to the Office of Academic Affairs for finding the funding for the non-Frueauff students. The efforts are much appreciated.

The Future of SURE

The following is quoted verbatim from the 2017/18 repost as nothing has changed:

There is still a need to raise the amount of the SURE Grants. Because of the smaller number of high quality applicants, the committee was able to recommend additional funds for those students whose research required travel. However, the committee was very concerned about the paucity of applications, despite a growing class and adequate advertising. Our conclusions are as follows:

- a. Despite increased funding, the award amounts will no longer support or interest the science students. The very talented will find external funds well above the SURE amounts of \$2000 plus \$500 for travel needs. This year, for the first time ever, the science proposals were among the lowest scored. While in part this was due to the strong work done by faculty in the Humanities and Social Sciences to work with their students to produce strong proposals, there was also a recognition that most science students and their mentors cannot support the research on these monies,
- b. Even in the non-sciences, there were reports this year that funding could not go far enough. Most of the students now require travel to archives and sites. We are glad to have had an extra \$500 each for those students, but it is still not enough.
- c. We hope that the lack of interest comes from the first two points, but faculty are reporting a decrease in student interest in summer research projects, citing work needs and general aversion to more academic ventures. Many others simply express no intellectual curiosity to take on a project. With an increase of students in the underclasses we had expected a greater competition, and instead had a record low in applications. Indeed, we had fewer applications by half than in the inaugural years, with far fewer eligible students. We are hoping that this year was an anomaly, not a trend.
- d. The same faculty are advising the successful candidates year after year. It is recommended that junior faculty be given orientation on the SURE process, to diversify and widen the applicant pool, and to be assured credit towards Tenure and Promotion by doing so. As for last year, a better method of promoting the grant opportunity has to be found.

Undergraduate Research Journal

The SGA is working with me to create an undergraduate research journal, *The Fountain*, with support from the Faculty Senate. The initiative is being led and proposed by two very intelligent sophomores and a freshman and has already gone through some of the preliminaries. The proposal has sustainability potential. A provisional board of faculty advisors has been formed for the inaugural online issue, which will feature the

2018 Maris and SURE winners, and may see publication in September 2019. The Senate has endorsed *The Fountain*, which has been sent through to the office of the Provost.

Senior Capstone

Concluding Remarks and Recommendations

Showcase and SURE were successful this year, and has wholeheartedly embraced scholarship in the School of Business, Law, and Music as well as in the Arts and Sciences, but SURE needs more funding to survive as a competitive and desirable summer grant. The use of an alumnus speaker will be explored this summer, given the number of fine SURE/Maris alumni identified through my emails to alumni award winners. To continue the success of the Stetson Showcase and SURE program, the Committee recommends:

1. Examination of Showcase funds to balance the high cost of the banquet and the popular reception (which had to be cancelled this year).
2. A fundraising campaign targeting SURE funding and raising it to levels that can support student research in an ever more expensive research environment.
3. Continued involvement of the Trustees and the DeLand community to spread the word about Showcase's success.
4. An effort to maintain the momentum of the strong twentieth anniversary Showcase, especially in the School of Business and in alumni involvement.

Respectfully submitted,



Kimberly D. S. Reiter
Chair, SURE/Showcase

Appendices

1. Showcase Maris Prizes 2016
2. SURE Grants 2015/6
3. Showcase 2016 Program (Separate Sending)

APPENDIX 1

Maris Prizes 2019

Maris Prize Winners:

Posters:

Tara Breeden The Effects of tDCS and Meditation on Anxiety and Attention

Hallie Kimbrel Comparison of the distribution of southern rays, *Hypanus americanus*, and bluntnose rays, *Hypanus say*, in Pinellas County, FL

Katherine Scott Keep Calm and Pray On: The Exploration of How Religious Involvement Predicts Anxiety Levels

Samantha McPherson Assessing the metabolic cost of pregnancy in pygmy rattlesnakes (*Sistrurus miliarius*)

Art Exhibition:

Solomon Nehrig Harmonic Levels

Music Recitals:

Kat Kirby-Kopczynski, Voice (Soprano)

Oral Presentations:

Claretta Holsey Mouth Sound

Elijah McCoy App-tastic: How can technology improve the stage management process? **Zoe**

Weaver Bu Yi Yang: Why Democracy in Taiwan is in Two

Samantha Harris The Limitations Behind a Laser Range Finder

William Gillett Analyzing Cryptobiosis in Tardigrades: *Hypsibius dujardini* and *Dactylbiotus dispar*

Molly Flanagan The Effect of Informative Contexts on the Recall of the Orthographic Representations of Words

Business:

Kailee Howe “Mish Mash Bowl”

Nathaniel Diamond, Nathaniel Smith, Regis Steighner, and Matthew Sweeney A New Business Approach for the Cancer Action Network of the American Cancer Society

Maris Prize Honorable Mentions:

Posters:

Samantha Fink Full-thickness Macular Hole Formation after Repair of Rhegmatogenous and Tractional Retinal Detachment

MacKenzie Nalven The Effect of Limiting Email Usage on Job Productivity

Anthony Bonilla *Alpinia zerumbet* Seed Extract Reduces Jurkat Leukemia Cell Viability

Jacob Koos Infrared Thermal Imaging: The Effects of Emissivity on Thermal Radiation

Art Exhibition:

Olivia Valiante Inside the Box

Hali Pollard Layers

Music Recitals:

Maria Toledo, Percussion

Oral Presentations:

Kaitlyn Kocsis Balancing the Best of the World: *National Geographic Traveler's* Rhetorical Presentation of Culture and Its Ideological Significance

Angela Osmar Academic Help-seeking Behaviors in Black College Women

Nathan Bodger Women's Rights, Buddhism, and Law in Thailand

Shaylen Vitale We Knew: The Failure of the American Press in Second World War Holocaust Coverage

Hanna Elmasry Robot Liability

Maddy Wheeler The Prevalence of the Pentastome Parasite, *Raillietiella orientalis*, in Pygmy Rattlesnakes and Ribbons Snakes in Central Florida

Kyra Aviles Decreased Cell Viability in FGFR-inhibited Injured Adult *Ciona intestinalis* Hearts

Jessica Algieri Forgotten Founders and Fictional Facts: The Unique Story of Elizabeth Stetson Countess of Santa Eulalia

Business:

Son Vu Sale Role Play

Bilal Hashmi and Levesque Zechariah Lennar

APPENDIX 2

SURE Grants 2019

Frueauff

Vincenzo Cornacchione **Assessing Perceptions of Healthcare Access Among Rural Honduran Community Members**

Lezhi Liu **Convergent Series Solution Analysis for Lane–Emden equations with initial values and boundary conditions**

Jeffery Lu **An Analysis Regarding the Accuracy of An Application of The Monod Equation for The Growth and Decay of Escherichia Coli Biofilm Under Variable Conditions**

Jenna Palmisano **Determining the Competent Intermediate Hosts of a Recently Introduced Snake Parasite, *Raillietiella orientalis*, in Florida**

Breanna Shi **Study of the Homotopy Perturbation Method and the effect on different non-linearities on the Lane-Emden Equation**

SURE (PBCT, PRAT and Farmer-Hartke)

Caitlyn Bishop **Dating Experiences of Asian-American Women**

Dakota Figueroa **From Archenemies to Allies: Reassessing the Birth of the United States-Japan Alliance, 1945-1960**

John Levee **Interactive Audio Installation for 5.1 Speaker Array and VR Headset**

Emily Maule **Where Has the Art Gone? Examining the Use of Imagery in the Baptist Community**

Isabelle Palmer **3D Modeling and Animation at FIEA**

James Parman **America's Genocide: Analyzing the Motives and Effects of Anti-Native Violence**

Nelson Quezada Herrera **Elite-Driven Beliefs? How Issue Framing Affects American Attitudes Toward the Green New Deal**