

Cornerstone

Office of Research and Grants | Transformational Scholarship at Azusa Pacific University

Volume 9 (AY 2021-22), Issue 1



Faculty Spotlight

Christopher B. Newman, PhD
School of Behavioral and Applied Sciences
Department of Higher Education
(on page 3 & 4)

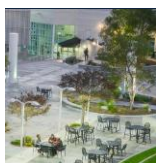
3



Student Spotlight

SURE Research Resumes during Summer 2021
(on page 2 & 5)

2



Faculty Research Council

Call for Proposals UG/M Faculty / Fall 2021
(on page 4)

5



Calendar and Events

Upcoming ORG Events & Deadlines

3



Office of Research & Grants

680 Alostia Ave., Suite #115
Azusa, California 91702
626.815.2082

<http://www.apu.edu/researchandgrants/>

grants.apu.edu

Your APU Grants Hub



Iron Sharpens Iron Mentoring for Research and Grants

January 2018 marked the inauguration of an exciting new initiative at APU, the Jr. Faculty Research and Grants Mentoring Program. This 18-month program, developed by ORG in response to challenges it had identified, has proven to be an effective tool to position faculty to succeed in their pursuit of research and grants. Faculty in early-career stages often struggle to find balance among competing demands of teaching, research, and service. Key features of the program are to provide mentees multiple layers of mentoring to develop faculty in all their roles, but especially in research and grants. Members of three cohorts to date have achieved ambitious deliverables such as:

- Formulating a five-year strategic plan for individual development in research and grants.
- Participating and presenting in at least one regional-level, or higher, conference.
- Completing 20 hours of grant-related training (grant development and writing, grant administration, responsible conduct in research).
- Preparing and submitting at least two external grant applications during 18-months in the program.
- Identifying at least three additional funding opportunities that could readily be pursued after the program ends.
- Seeking out and receiving critical feedback on writing pieces (grant applications, journal articles).
- Seeking out and receiving opportunities to [Watch Brief Mentoring Program Video](#) become a grant reviewer for at least one sponsor.



We are pleased to announce that a new cohort will commence in January 2022. Prospective participants are invited to apply by the **October 29, 2021 deadline**. Details on the application process and forms are [on this site](#). As we look forward to starting this new cohort, now is a good time to reflect back on some intriguing highlights from this program to date. *(continued on Page 4)*



Congratulations!

Recent Grant Funding

(July 2021 – September 2021)

Everette Brooks (OMVS). *Center for Excellence for Veteran Student Success.* Funded by US Department of Education (ED) (\$445,816)

Rachel Gonzales-Castaneda (BAS). *Training and Technical Assistance Services (substance Use Disorder Services).* Funded by LA County Dept. of Public Health / California Institute for Behavioral Health Solutions (\$252,800)

Catherine Hahs Brinkley, Rebekah Harris, Anita Henck (SOE). *BranchEd Transformational Model: Teacher Preparation Program.* Funded by the Branch Alliance for Educator Diversity (BranchEd). (\$400,000)

Louise Huang (CLAS). *Aerospace Workforce Development Program.* Funded by California Space Grant Consortium (CaSGC). (\$15,000)

Margaret Lee (BAS). *Azusa City Resource Toolkit Project.* Funded by Canyon City Foundation. (\$10,000)

Sally Mansour (CCC). *Healthy Azusa.* Canyon City Foundation. (\$24,824)

Abbylin Sellers (CLAS). *Frederick Douglass Fellows.* Funded by Charles G. Koch Foundation. (\$22,000)

Diane Viera (SON). *Ask-a-Nurse Pop-Ups.* Funded by Canyon City Foundation. (\$13,032)

Student Spotlight

SURE Research Resumes during Summer 2021

This past summer, eight teams of APU undergraduate students and faculty mentors began new research projects sponsored by the SURE program. SURE spelled out is *Scholarly Undergraduate Research Experience* and is part of APU's [Undergraduate Research](https://www.apu.edu/undergraduate-research) program directed by Verónica Gutiérrez, MFA, PhD. The goal of SURE is to foster a culture of undergraduate research by:

- Promoting undergraduate student/faculty research dyads
- Encouraging the undergraduate research experience
- Supporting the undergraduate grant writing process
- Providing an opportunity for undergraduate students to finesse their research findings for presentation at an academic conference and/or for publication

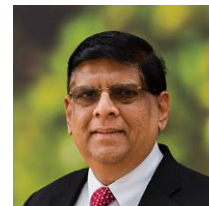
All eight summer 2021 SURE teams, along with their project titles, are listed on the SURE webpage - <https://www.apu.edu/undergraduate-research/sure-award/>. In this *Cornerstone* note, we spotlight two of the teams and look at the progress on their exciting projects.

Systems Engineering for a Satellite Network Alternative to Black Boxes for Aircraft.

Karina Gray, Engineering (Faculty mentor: George Thomas, PhD, Professor, Department of Engineering and Computer Science)

Ms. Gray and Professor Thomas are engaging in a very technical, yet practical, project that could have far-reaching impact for commercial airlines. Their study explores alternative data management and preservation schemes to the traditional flight data recorders, otherwise known as black boxes, associated with airline disasters. Difficulties and time delays in recovering black boxes from airline crashes can seriously impede investigations as to the cause of crashes and how to prevent their reoccurrence. Gray and Thomas have been exploring the 'glass box system' option in which black box flight information is linked to ground stations through satellites and cell phone networks. In this way, data leading up to an incident are preserved even if an airplane's black box is unrecoverable.

The project requires Gray and Thomas to consider a variety of factors, including the availability of network bandwidths and satellite constellations along with economic realities. They are currently using special software, Satellite Tool Kit (STK), to simulate airplane and satellite movements and explore various communication paths between these moving objects and the ground. Their work with the STK has already caused them to focus on alternative glass box versions from what they started out with. Gray and Thomas are hopeful that their research will eventually make a difference in airline safety as they move forward this fall with more STK simulations and delve into 6G wireless possibilities for future aircraft data storage and management schemes.



Deterrence and Mutually Assured Destruction in the Age of Ballistic Missile Defense Systems.

Abigail Brown, International Relations and Honors Humanities (Faculty mentor: Daniel Palm, PhD, Chair and Professor, Department of History and Political Science)

The study by Ms. Brown and Professor Palm has implications for U.S. national security and standing among nations around the world. Indeed, Brown and Palm are examining the efficacy of the emerging Aegis Ballistic Missile Defense system to reduce nuclear threats to the U.S. and its allies. Their work also provides a history of two previous U.S. anti-ballistic missile projects, Safeguard and the Strategic Defense Initiative. The project builds on nuclear weapons policy research Brown did the previous year when her interest was stimulated while taking the department's National Security course taught by Professor Palm. Through this SURE opportunity, Brown and Palm are exploring how the Aegis system impacts policy theories around nuclear weapons, mutual destruction, and deterrence, many of which originated with the Cold War during the second half of the last century.

Brown has now interviewed some leading experts on international relations and strategic defense policies, including Danielle Pletka, a foreign relations and defense scholar..... (continued on Page 5)





Calendar & Events

Events/Workshops

Upcoming Sabbatical Talks

- October 14, 2021: Regina Trammel (BAS)
- November 30, 2021: Chris Collins (BAS)
- December 8, 2021: Mark Arvidson (CLAS)

Program Dates/Deadlines

Jr. Faculty Mentoring Program

- October 15, 2021: Intent to Apply Due Date
- October 29, 2021: Application Deadline
- January 2022: New cohort to start program

Research Ethics Deadlines

IRB (Human subjects research) IACUC (Animal subjects research)

- October 6, 2021: Full Board Review deadline for October meeting
- November 3, 2021: Full Board Review deadline for November meeting
- December 1, 2021: Full Board Review deadline for December meeting

Faculty Spotlight

We had the pleasure of recently hearing great news from Dr. Christopher Newman in the Department of Higher Education, School of Behavioral and Applied Sciences. We took this opportunity to ask him a few questions and learn about his research and fun personality.



ORG: Could you briefly share what your area of academic expertise is within the Department of Higher Education? **CN:** My research investigates issues of access, equity, diversity, and success, focusing primarily on pathways to and through undergraduate and graduate STEM education. I center my work with an equity-minded lens focusing on culturally responsive practices.

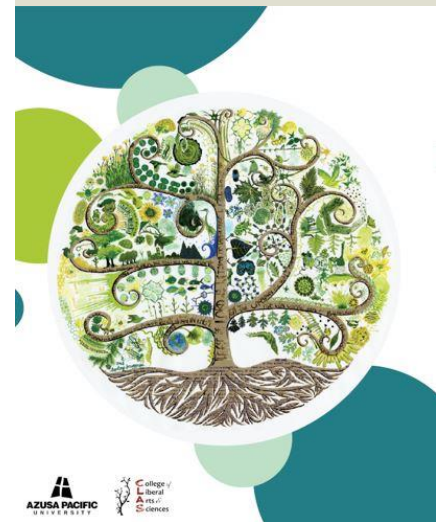
ORG: What were one or two past experiences that were important in helping direct you to your current career path? **CN:** I became interested in my research from my own experience. As a first year undergraduate student at the University of California Santa Barbara, I intended to major in geology, but I did not see anyone that looked like me or had a shared experience to my own lived experience among my peers or faculty members in the courses I was taking. Furthermore, the curriculum did not invite me to consider how I might improve the predominantly Black community I grew up in, which is a core value and goal of mine. During my doctoral studies at UCLA, a faculty member, Dr. Sylvia Hurtado, heard me speak to this personal experience and asked me why I didn't consider all the seismic activity in the Los Angeles area and the inequities in earthquake preparedness within communities of color? In response, I jokingly told Dr. Hurtado, "I did not have someone like her in my life at the time asking me those types of questions." I quickly realized that something I felt was a personal challenge for me was also a societal challenge that needed to be pursued. How do we engage with communities of color to encourage and support their passion for STEM education?

ORG: Just recently, you received a notice-of-award of funding from the John Randolph Haynes and Dora Haynes Foundation for a project you will work on with University of Southern California colleague, Darnell Cole, PhD. What is this project about, and what do you hope to accomplish through your participation in it? **CN:** This is a very exciting project titled SEEDS (Student, Engagement, Exploration, and Development, in STEM), which focuses on intergenerational mentorship through a unique collaboration with universities, local government, professional associations, and middle schools. Partnering with Los Angeles Unified School District, the National Society of Black Physicists, the city of Los Angeles, and USC and APU, middle school students will be mentored by college students to develop a "science fair" project. The college students will be mentored by university faculty or industry professionals from their area of interest within STEM. The middle school students will also have access to an online gaming-based STEM curriculum through the Legends of Learning. This project will further develop STEM interest in 600 middle schoolers and 60 college students. Dr. Cole and I are interested in studying the outcomes of this project with the intent on scaling the project in the future. **ORG:** What is your career path vision for the future, and how important is continuing to develop your research and grants profile to your future?... *(continued on Page 4)*



An interesting perspective on research by Albert Szent-Györgyi, Hungarian biochemist and Nobel laureate:

"Research is to see what everybody else has seen, and to think what nobody else has thought."



College of
Liberal Arts & Sciences
Center for Research in Science
**2021 STEM
Research Symposium**
Saturday, October 16
9:00 am – 3:30 pm
Segerstrom Science Center
RSVP & Inquiries:
CRIS@apu.edu

Faculty Spotlight

(Christopher B. Newman continued)...

CN: My career vision is to make a difference in this society for communities of color who are often systematically oppressed through things like inequitable school funding, racism, and sexism. It is important for me to continue to pursue funding grant opportunities to bring the much-needed resources to communities of color and to elevate their concerns to policy makers.

ORG: Any word of encouragement or advice to APU colleagues who may be considering applying for external research or program funding? **CN:** Seeking external funding is both time consuming and at times discouraging as most funding opportunities are competitive. I would strongly encourage those interested in finding funding for a project to be persistent and not stop because a proposal does not receive funding. It took Dr. Cole and I a number of proposal submissions, but we responded to feedback. I strongly believe the proposal improved at every iteration, which ultimately led to finding a funder who supports our vision.

ORG: Could you share one or two things about yourself that would help the reader better understand "Who is Christopher Newman?" They could be serious or otherwise, just as long as they are true! **CN:** As an enthusiast of everything STEM, I am very interested in Science Fiction. Star Wars films are my favorite. I could probably recite the entire original film "A New Hope" verbatim. The line that has stuck with me the most throughout my life was spoken by Obi Wan Kenobi when he told Han Solo, "who's the more foolish; the fool or the fool who follows him?" Darth Vader/Anakin Skywalker is my favorite character because he is a true redemption story. No matter how lost you feel, you can always be saved by the grace of God. I have a pretty nice collection of Star Wars figures and Black super heroes, which reminds me of God's grace and that I can do anything that I put my mind to.

Mentoring for Research and Grants

(Continued)...

- Eleven (11) APU faculty have been individually mentored in their research and scholarship by scholars from places like University of Southern California, University of California at Davis, Biola University, Claremont Graduate University, University of South Alabama, Clark University, and Billings Clinic.
- Each faculty in the program has received mentoring from at least three (3) mentors - a senior mentor, a research mentor, and a research administration mentor - extending our program network to 10 external mentors and 13 APU mentors not including the deans and department chairs. With the expectation that mentees confer with mentors at least once a month, the number of mentorship hours are estimated at minimum 54 hours per faculty throughout the program. Most mentees have continued in very rewarding academic collaborations with their external research mentors after their cohort ended.
- Productive peer and self-mentoring components were actively pursued. For example, one mentee enrolled in the APU Research Psychology and Data Analysis Master program as an outcome of the self-mentoring component.
- Eighteen (18) external grant proposals totaling \$1,879,460 in requests have been submitted on behalf of APU by mentees in the role of Principal Investigator (PI) since January 2018. In addition, faculty mentees participated as co-investigators or collaborating experts in at least seven other major external grant or fellowship applications.
- Institutional grant funding of \$310,915 from external sponsors has been awarded to faculty mentees while in the program. This does not include individual fellowships or university funding.

Other notes of interest coming from the first three mentoring cohorts:

- A first time submission of a NIH research grant proposal at APU by an early-career faculty.
- A first time submission of a NSF research grant proposal at APU by an early-career faculty.
- More than 20 hours of grants training per year provided to mentees, including the two-day Grants Academy offered annually.
- Mentees pursued opportunities to review grants for sponsors that include Health Resources and Services Administration (HRSA), Substance Abuse and Mental Health Services Administration (SAMHSA), John Templeton Foundation (JTF), Association of Orthopedic Physical Therapists, and US Department of Education.
- Mentees worked toward their five-year strategic career plans, presented at conferences, published multiple peer-reviewed journal articles, and had book proposals accepted while in the program.
- The program facilitated lively exchanges among APU faculty and between APU and non-APU faculty during events hosted by the program – Mentoring Coffee Breaks and ORG Exchange Luncheons, which we hope to reconvene in 2022.

Mentees in the program are universally enthusiastic about the program benefits and value to their development. A brief video is available here and along with their reports, it stands testimony to that statement. While challenges with finding time for developing research and grants agendas are acknowledged, the participants to date have lauded the program for providing motivation, momentum, and support to develop and stay on track with their goals even with the extraordinary challenges of the past three academic years

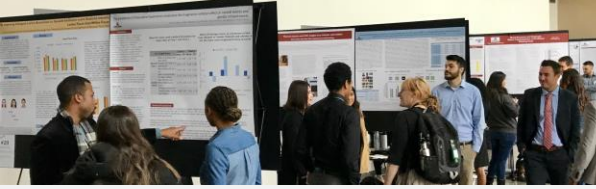
Let the wise hear and increase in knowledge,
and the one who understands obtain guidance
Proverbs 1:5



Deadline: October 29, 2021
[Application Details Here](#)

Award notification: mid-November, 2021
Program Start Date: January 1, 2022

Student Spotlight



(SURE Reports continued)... at the American Enterprise Institute in Washington D.C. and Cortez Cooper, a defense analyst at the RAND Corporation.

Among the many insights gained from these conversations is the surprising notion that policies rooted in the Cold War paradigm of mutually assured destruction are not at the forefront as they previously were. This insight has helped shape the direction of the study to the point that Brown is ready to present some initial findings to a larger group of experts on military and defense strategies. Kudos to Ms. Brown and Professor Palm who recently had their paper accepted for presentation at the Northeastern Political Science Association 53rd Annual Meeting scheduled for November 2021 in Boston, Massachusetts.

[Watch Brief SURE Video](#)



The Heavens Declare the Glory of God
October 19, 2021
<http://bit.ly/ScienceTheo2021>

THE HEAVENS DECLARE THE GLORY OF GOD:
From the Beginning to the Hubble Telescope
A Science and Theology dialogue

TUESDAY, OCTOBER 19, 2021 | 9:30 AM - 12:30 PM | VIA ZOOM

SESSION 1: THE WONDER OF THE STARS

Jennifer Wiseman, Ph.D.
Astronomer and Director of the American Association for the Advancement of Science (AAAS) Dialogue on Science, Ethics, and Religion (DSEER)

SESSION 2: THE BIBLE AND THE STARS

J. Richard Middleton, Ph.D.
Dr. J. Richard Middleton, Professor of Biblical Worldview and Exegesis, Northeastern Seminary at Roberts Wesleyan College, NY. Adjunct Professor of Old Testament, Southern Christian School of Theology, Jamaica, His publications include *The Learning Image: The Image Dei in Genesis 1 and A New Heaven and a New Earth: Reconciling Biblical Eschatology.*

Karen Strand Winslow, Ph.D.
Professor & Chair
Dept. of Biblical and Theological Studies,
Director, House of Holy Theological Studies,
Azusa Pacific Seminary

Louise Ko Huang, Ph.D.
Assistant Dean, College of Liberal Arts and Sciences
Director, Center for Research in Science
Azusa Pacific University

Cohen Elvior, Ph.D.
Professor, Department of Biology and Chemistry
Azusa Pacific University

ZOOM registration is required at
<http://bit.ly/ScienceTheo2021>

Funded by the AAAS grant for Azusa Pacific Seminary's Science in Seminaries Project: Exploring The Truth Together.

Faculty Research Council



Fall 2021

Call for Proposals

Undergraduate/Master Faculty

Once again, the Faculty Research Council (FRC) announces its fall call-for-proposals for research grants to UG/M faculty. Proposals may be submitted for:

- **Research grants:** \$6,000 (single PI), \$8,000 (two PIs), and \$10,000 (three or more PIs) per application.
- **Planning grants**
- **Publication assistance or Subvention grants**



[Watch Brief FRC Video](#)

Proposal deadline:

November 19, 2021

Details and Fall 2021 application packet available on the [FRC google site](#).



Dr. John Trent

Publishing and Writing Consultant for APU Scholars

Accomplished award-winning writer available to meet with APU faculty for one-on-one consultations

John Trent can assist APU scholars with:

- Organizing ideas being presented in a book or journal article
- Turning a concept or idea into a book
- Deciding on whether to self-publish or seek traditional publishing outlets
- Strategizing for turning dissertations into books
- Formulating in writing a book proposal pitch

Schedule an appointment (Zoom) for October 26 or 27 through this [John Trent Consultation Form](#)

to a publishing house • Developing a platform to interest publishers in a book idea • Getting 'unstuck' and moving writing project forward – dissertation, book, journal article • Making contracts between authors and publishers • Creating marketing plans for published works • Coaching on doing radio and TV interviews • Developing ideas for building online platforms • Creating brands for an author's published works

Please note the above does not include editing, proof reading, or reading and providing feedback on articles, book drafts, or writing samples. Please contact the Office of Research and Grant (yrodriguez@apu.edu, ext. 2082) if you have questions on whether his services fit your specific needs or wish to reserve an appointment. Dr. Trent's continuing work with APU is possible through support from the Office of the Provost.