Cornerstone

Transformational Scholarship at Azusa Pacific University

Office of Research and Grants | Winter 2018



Faculty Spotlight

Chong Ho (Alex) Yu Associate Professor, Department of Psychology, School of Behavioral and Applied Sciences A person with accomplishments...

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Student Spotlight

Silas Griffin Honors College, College of Liberal Arts and Sciences

"During my time at APU, I have had the privilege of... (continued on page 2)



Thesis and Disertations

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Thesis and Dissertation Preparation Graduate Student Publication Workshops *(continued on page 2)*



Calendar and Events

Upcoming ORG Events & Deadlines



Office of Research & Grants 680 Alosta Ave., Suite #115, Azusa 626.815.2082 http://www.apu.edu/researchandgrants/



Faculty Research Mentoring Meme A Multi-Layered Approach

Classroom and seminar settings, small-group discussions, workshops, and the like, are routinely used in advancing higher education goals. *The value, however, of mentoring relationships in developing young academicians into productive researchers and scholars can hardly be over-emphasized*. Indeed, research shows that graduate students who had robust mentoring relationships will ultimately find better career opportunities and be more productive than those whose graduate experience was otherwise. But, why stop there? Here at APU, we recognize that junior faculty would benefit significantly from additional mentoring relationships. Accordingly, with encouragement and support from the Office of the Provost, this January, the Office of Research and Grants (ORG) launched an exciting new endeavor - the Research and Grants Jr. Faculty Mentoring Program.

The virtues of team approaches to academic mentoring are extolled in some recent studies. One way to think of team mentoring is to view it as a multi-layered process¹ that helps a faculty member: (1) identify appropriate professional development goals and priorities; (2) navigate institutional systems and structures; (3) initiate and advance a research agenda amidst new responsibilities pressing in from many directions; (4) promote collaborations; and (5) master research administrative processes while making use of existing support systems.

The APU Jr. Faculty Mentoring Program utilizes five levels of mentoring relationships while embracing this multi-layered approach. First is *self-mentoring* during which the faculty mentee thoughtfully considers professional

¹Byington, Carrie L. et al (2016) A Matrix Mentoring Model that effectively supports clinical and translational scientists and increases inclusion in biomedical research: Lessons from University of Utah, Academic Medicine, vol. 91, issue 4 (p. 497-502)

(Article continued on Page 4)

Congratulations!

Recent funding (November 2017-January 2018)

Veronica Gutierrez (CLAS). *Curriculum Development Grant*. Funded by the University of Notre Dame (UND), Global Religion Research Initiative (GRRI). (\$4,000)

Louise Huang (CLAS). *Environmental Stewardship and Sustainability in Faith Based Higher Education Institutions.* Funded by the Scholarship & Christianity Oxford (SCIO). (\$14,800)

Christopher Noble (High Sierra). *Exploring Natures: A Para-University Model for Humanities Education*. Funded by Lilly Fellows, Network Exchange Grant. (\$25,000)

Lynda Reed (SON). 2017 Advanced Practice Nursing and Physician Assistant Scholarship. Funded by CVS Health Foundation. (\$3,000)

April Reed-Hoy (Athletics). *The NCAA-DoD Grand Alliance: Concussion Assessment, Research and Education (CARE) Consortium – Grant Supplement*. Funded by University of Michigan, NCAA/Department of Defense -Army. (\$13,146)

Spring 2018

Thesis and Dissertation Preparation Graduate Students Publication Workshops

Wednesday, March 7, 2018 9-10am (Duke 520) Details: For 48 DPT students and others (46) writing dissertations and theses

Wednesday, March 14, 2018 9-10am (Sakioka Computer Training Center) Details: Specific to DPT students

Monday, March 19, 2018 9-10am (Sakioka Computer Training Center) Details: Specific to DPT students

Tuesday, April 10, 2018 7-8:30 pm (Duke 601) Details: Specific to organizational psychology students writing their thesis

Monday, May 14, 2018 9-10am (Duke 520) Details: For 48 DPT students and others (46) writing dissertations and theses



For more details contact Dr. Sharon Wang, Director of Graduate Student Publications [swang@apu.edu]



Student Spotlight Silas Griffin Honors College / College of Liberals Arts and Sciences

... participating in the Student-to-Scholar (S2S) research program offered by the Department of Biology and Chemistry. I began two years ago on a project with guidance from my

faculty mentor, Dr. Kevin Huang. The project utilized a synthetic method developed by Harvard professor, Dr. David Liu, which allowed for the creation of many biologicallyfunctional compounds. Initially, I thought our project would yield results quickly, but I soon realized that performing scientific research has many challenges that must be overcome. My first summer working in the lab left me

"Silas Griffin's strive for excellence is what makes him such an exceptional student. His strong research skills and determination to overcome challenges are commonly found in second year graduate students. His achievements in undergraduate research and academics will undoubtedly propel him in his pursuit of medicine"

> **Kevin Huang**, PhD Associate Professor, CLAS Biology and Chemistry

feeling discouraged as our project produced few results, but Dr. Huang continued to encourage me and help me think of ways to overcome the obstacles we faced.

The following year, the research team was expanded to include a few more students. While they continued the project, Dr. Huang recruited me to help him publish a paper about another synthetic method for producing biologically-active molecules called "spiromolecules." I worked alongside Dr. Huang and fellow research student, Cody Drisko, to craft a narrative of our results. In November 2017, we published our article in the international organic chemistry journal *Tetrahedron Letters*.

Through my experience in the S2S program, I discovered all of the components that make for a successful research project. Reflecting upon my past science courses, I never fully realized the difficulty of each protocol and experiment I studied. It became clear to me that one must embrace a spirit of perseverance to become a successful scientist and to truly make an impact in one's field of study. From these projects, I discovered the educational power of failure as well as the need for perseverance through these failures. I am very grateful for the opportunity to do research at this institution, and I know that I will use the skills I learned here in the APU science program, including moving from discouragement to success, throughout my career and other areas of life.



Silas Griffin is completing double majors in Biology and Honors Humanities.

Cornerstone



Faculty Spotlight

...in many areas is called a *Renaissance man* by some, while others prefer the more gender-neutral term *polymath*. Either one aptly describes our faculty spotlighted for this *Cornerstone*. Indeed, Dr. Chong Ho (Alex) Yu has rare breadth and depth of scholarly accomplishments, with interests enveloping

exploratory data analysis, data visualization, data mining/data science/big data analytics, science and math education in cross-cultural perspectives, the psychology of religion, and relationships between science and Christianity.

Since joining the APU Department of Psychology in 2012, Dr. Yu has published 25 journal articles and 6 book chapters. He has been recognized, and courted, by significant entities that promote the development and dissemination of knowledge worldwide. SAS, a software leader in statistics and data analytics, awarded Dr. Yu their SAS Faculty Scholarships three times. Last year, SAS recognized the presentation by Dr. Yu and three APU students at a conference as The Best Paper Award in the Category of Data Science and Big Data Analytics. Also last year, Dr. Yu was invited by the prestigious Oxford University Press to publish a key chapter in an online book on Exploratory Data Analysis (EDA), the cutting-edge methodology of quantitative research. Prior to that, publishing giant Springer invited Dr. Yu to contribute a book chapter on international assessments which Dr. Yu co-authored with respective APU faculty and student, Dr. Francis Wu and Casey Mangan. This chapter identifies influences on student performance

in science and reveals that Hong Kong students view an open-minded approach to problem-solving as the single most important factor to their success in science. More recently, Springer again invited Dr. Yu to publish with them, this time a book on how the US can learn from Hong Kong in science and math education.

Seeing students he has mentored develop and thrive brings Dr. Yu special satisfaction. While at APU, 6 publications and 30 conference papers were co-authored with students. He was deeply gratified when his student team received the aforementioned Best Paper Award from SAS, and again last November, when another paper his students presented won the Best Student Paper Award at the Southern California Big Data Discovery Summit.

Dr. Yu recognizes data science is revolutionizing many fields, including public health, business, social sciences, public policy, and media. He envisions APU academicians from diverse disciplines helping their programs flourish by embracing *new* data analytics. To be sure, it is *new* in that it uses novel approaches to data mining and structuring, relies on visualization and pattern recognition, seeks fresh ways to compare and contrast different modeling outcomes, and looks to machine learning and artificial intelligence.

Dr. Yu notes, "Many universities have already offered new graduate programs in data science or include data science in traditional programs. We need to equip our graduates with job skills in high demand." He received an Anticipatory Thinking grant from the provost to form a data science consortium at APU. According to Dr. Yu, this think tank will develop strategies to introduce data science into our curriculum. He was also instrumental in last year's launch of the Southern California Big Data Discovery Summit at APU, an event he envisions recurring annually to provide a platform for faculty and students to learn more about data science and promote the image of APU as a research university.

What might Dr. Yu be doing when there are no more data to be analyzed and all the research is done? Currently he is a columnist for several Chinese Christian periodicals. He is also a professional-caliber photographer. Should one wonder how his analytical mind and aesthetical eyes coexist, Dr. Yu has an answer. He states, "Both visual arts and quantitative research are about pattern-seeking. I don't conduct analysis by following rigid rules only (e.g., p value =<-05, eigenvalue => 1...etc.). I look at the scenery and data in a holistic fashion." That is perfectly clear...to most *polymaths*, at least!

Kudos to Dr. Yu for excellence in many areas of research. He is available for faculty consultation on quantitative methods/questions in their research and can be contacted at cyu@apu.edu.

Calendar & Events

Events/Workshops

Grant Training

Canyon City Foundation Letter of Intent Q&A March 15, 2018: 10-11am (ORG Conference Room)

Finding Funding Opportunities: Use of PIVOT Search Engine March 16, 2018: 10:30-11:20am May 18, 2018: 10:30-11:20am (ORG Conference Room)

Thesis and Dissertation

Preparation March 7, 2018 March 17, 2018 March 19, 2018 April 10, 2018 May 14, 2018 (details on page 2)

Upcoming Sabbatical Luncheons

March 1, 2018: B.J. Oropeza March 14, 2018: Loren Martin March 27, 2018: Patricia Hanes April 5, 2018: Lewis Bonney April 12, 2018: Richard Robison (LAPC)

Beverly H. Stanford Fellowship Luncheon

April 17, 2018: Joshua Rasmussen (LAPC)

Writing Consultation with John Trent March 19-20, 2018

Common Day of Learning (CDL) CDL: February 28, 2018

Research Ethics Deadlines

IRB (human subjects research)

March 7, 2018: Full Board Review Application deadline for March meeting April 4, 2018: Full Board Review Application deadline for April meeting May 2, 2018: Full Board Review Application deadline for May meeting

IACUC (animal research)

March 14, 2018: Protocol or amendment deadline for March meeting April 11, 2018: Protocol or amendment deadline for April meeting May 9, 2018: Protocol or amendment deadline for May meeting

(Faculty Research Mentoring Meme article, continued)

... goals, priorities, and strategies. There is then a *senior mentoring relationship* in which the junior faculty is guided on setting and achieving career goals and timelines by a senior APU faculty member who is intimate with institutional expectations, processes, and systems. A *research mentor*, one who can encourage and assist the faculty mentee to initiate and advance their research and grants profile, is then identified. Research mentors may be from APU, but faculty mentees are also strongly encouraged to seek this relationship with one from another institution. *Peer mentoring* relationships are then sought out to intentionally develop perspective, collegiality, and especially collaborations, among those with similar interests. Finally, *research administration mentoring* is pursued with someone from ORG to familiarize the faculty mentee with research options, opportunities, resources, and logistical processes.



In practice, these multi-layered mentoring relationships are not pursued sequentially, but are ongoing simultaneously during the 18-month program. To be sure, regular points of contact between the faculty mentee and each of their different mentors occur

throughout the program. The program's cohort structure also promotes a rich interaction among participating mentees, and even their mentors, through semi-annual exchange luncheons.

Among the eight written expected outcomes for this mentoring program are to see each participant having (1) designed a five-year personal strategic plan for development in research and grants, and (2) prepared and submitted at least two grant applications over the run of the program. Other written outcomes include the faculty mentee making research presentations at conferences, identifying grant opportunities that could be pursued after the 18-month run of the program, and having an opportunity to review at least one grant application for a funding sponsor. Additional details on APU's recently-launched Jr. Faculty Mentoring Program are available <u>here</u>.

We are pleased to introduce an excellent four-person faculty cohort that comprises the initial Research and Grants Jr. Faculty Mentoring Program run from January 2018 through June 2019.

Jennifer Buck, Ph.D.

Department of Practical Theology

Joshua King, Ph.D. Department of History and Political Science

Jennifer Shepard Payne, Ph.D. Department of Social Work

William Whitney, Ph.D. Department of Psychology

Finally, even though the first mentoring cohort was just launched, the call for applications for the next cohort that begins January 2019 is out and can be found <u>here</u>. If you are a full-time faculty within the first five years of your initial APU appointment, you are encouraged to consider this opportunity. Important dates to keep in mind are:

- October 5, 2018, Mentoring Program Q&A Session
- October 10, 2018, Intent to Apply Due Date
- October 26, 2018, Application Deadline



"Research has the ability to increase our understanding of created things, of ourselves, and ultimately, of our Creator. Through this understanding and critical, reasoned thinking, faculty

and student scholars at APU are engaged in working toward solutions to society's problems, dignity for all, and advancing God's Kingdom in the world.

> Denise Ferguson, PhD, APR Associate Dean and Professor, College of Liberal Arts and Sciences

Research Events @ APU

Recent...



STEM Day: Inspiring Wonder Through STEM February 3, 2018 <u>Highlights here</u>



Upcoming...

CRIS Science and Faith Event

March 21, 2018 | 5-6pm | Segerstrom Perry Lecture Hall Speakers: Bill Newsome, Stanford University, Nancey Murphy, Fuller Theological Seminary, Daniel Grissom, Azusa Pacific University

"What is Intelligence? The Science and Christian Philosophy versus Artificial Intelligence"

CREV Lecture

Thursday, April 5, 2018 | 4:30-5:30pm | LAPC Speaker: Mark Valeri, Washington University, St. Louis *"Religious Choice and Cultural Encounter in Early America"*

