AzCEP’s Resident/Student Research Seed Grant

PROJECT PROPOSAL OUTLINE

Rationale:

- AzCEP is supportive of Emergency Department based clinical research throughout the state of Arizona
- AzCEP is supportive of Emergency Medicine Resident and Medical Student education
- AzCEP supports Arizona emergency medicine residents and medical students as they work towards their future careers as emergency physicians
- AzCEP strives for an ongoing support and presence in EM training programs and medical schools throughout Arizona

2020 Award Timeline/Process:

- July 30th: AzCEP announces the availability of a closed competitive grant process. Grants will be awarded at a maximum of $1000 to the most competitive proposals.
- October 15th: Grant application deadline due; To be sent as a Word document.
- Mid-November: Grant applications reviewed by AzCEP Seed Grant Review committee.
- December/January: Grants announced and awarded with recognition event at the next available resident (or medical school) conference followed by a lunch event sponsored by AzCEP.

Application process

Maximum four page application to be completed by applicant. E-mail completed application (in a Word document) by October 15th to Stephanie at: azcep@gmail.com Application must be accompanied by a letter, in a PDF format, from the residency program director (resident applicant), or faculty advisor (student) that contains verbiage on:

- Support for the application
- Assurance of ethical use of funds (none to be used on travel expenses)
- Assurances of local IRB sanctioned research
- Residency/medical school assumes liability and releases AzCEP from any liability whatsoever
- Assurances that awarded monies will be used only for the research outlined in the awarded proposal
Application forms distributed to Arizona Emergency Medicine residency program directors and/or research directors as well as to medical students through the EMIG website. Application form available on AzCEP and EMIG websites.

**Review Process**

AzCEP formed review committee to be comprised of: Two members of the AzCEP Executive Committee; two AzCEP board members; one member from each training program.

Applications to be distributed to all review committee members one week prior to review committee meeting. Meeting will comprise of the review of each application, scoring and ranking. Reviewers may submit evaluation scores remotely. Seed Grant Award review committee discussions may be conducted in person or by teleconference at a Seed Grant Award review committee meeting, where all applications will be ranked. The review committee will be chaired by the education sub-committee chair who will not be a voting member of the committee. The chair will be called to vote on applications only in the case of a committee tie vote.

**Award Event:**

AzCEP board representative will travel to the residency training site or medical school and announce/congratulate the award winner and provide breakfast or lunch. Recognition would take place during residency conference for the benefit of recognition in front of their residency peers and faculty.

The AzCEP Board is interested in maintaining an ongoing dialogue with the researcher and the involved residents/students throughout the duration of the study. Similarly, the chapter is eager to participate in the acknowledgement of the academic contributions that result from these grants. For these reasons, the chapter will request and make contingent upon the award that there will be a mid-cycle update on the progress of this study and at its outcome. We would ask that the researchers please forward any written abstracts, papers or similarly written reports on the work stimulated through this seed grant so that your work may be showcased at our annual meeting. Lastly, we request that any publications, announcements or press releases include recognition of AzCEP’s support. We also would invite a representative(s) to present any study results at a subsequent AzCEP summer retreat.
Project Application

- Name of Principal Investigator (Resident/Student applicant(s)) & e-mail address
- Name of Faculty Sponsor & e-mail address
- Name of Institution
- Title of Project
- IRB approval/application number
  - If IRB approval has not been obtained at the time of this application, please include a copy of the IRB application form (F200 or equivalent)
- Project Abstract
- Project Work Statement
  - Goals and Objectives
  - Methods
  - Project Description
  - Timeline
  - Future goals following seed grant timeline
- Budget (Travel or travel expense will not be considered)
- Signature line (to include the following attestation verbiage)

Initials
___ I agree that any publications, announcements or press releases will include a recognition AzCEP’s support.
___ I agree that a representative will be available to present any study results at a subsequent AzCEP retreat.
___ I agree to supply the AzCEP chapter board updates on any change in personnel and that there will at all times be a faculty advisor associated with the project.
___ I agree to supply the AzCEP chapter board a brief progress report at the mid-cycle and conclusion of this research project.

I attest that the requested seed grant support of $1000 will be used solely for the research outlined in the attached application and summarized in the attached budget. All research conducted in this grant proposal will be conducted with the utmost consideration of ethical behavior in research and under the approval of my institution’s Institutional Review Board (IRB) for the ethical conduct of research. My residency training program/Medical School will assume full liability for the activities conducted in this research and releases AzCEP (Arizona College of Emergency Physicians) from any liability whatsoever from the conduct in this research.

IRB Study approval #: ______________________________ Date of approval: ______________________________

Signature: ______________________________
Resident/Student Principal Investigator(s)

Faculty Advisor ______________________________ Residency Director (or Dean for medical student) ______________________________ Date ______________________________

810 West Bethany Home Road, Suite #110 • Phoenix, Arizona 85013-1662
Phone\Fax (602) 336-4599 • E-Mail: azacep@gmail.com • Web Pages: www.azcep.org & www.acep.org
Report Form

____ Mid-Cycle Report  ____ Project Completion report;  IRB Approval # _____

____ # Study data sets obtained (subjects enrolled, surveys received, etc.)

List any existing barriers to the execution of your research

__________________________________________________________________________

__________________________________________________________________________

Is there anything that the AzCEP chapter members may assist with to execute your study?

__________________________________________________________________________

__________________________________________________________________________

Have you needed to change personnel, modify your hypothesis based on what you have found out so far?

__________________________________________________________________________

__________________________________________________________________________

Have you been able to make any conclusions based on your data so far and if so, what?

__________________________________________________________________________

__________________________________________________________________________
AzCEP’s Resident Research Seed Grant Award Winners

2011-Awarded but not cashed

(-$1000 awarded to Dr. Stephen Charbonneau & Dr. Whitney Kiebel; Advisor, Dr. Dale Woolridge (UofA)

- The study was the result of an internal training module and assessing impact of this module. If you recall, the grant had requested funding to support meetings (lunch/snacks) in the attempt to deliver this training to outside physician groups. This is where the study failed. To Whitney and Steve's disappointment, they could not get a set of docs together to sit in on this training. (I'm sure you can relate on how hard it is to get a series of docs together). For this reason, the $1k check was never used and never cashed. Steve and Whitney gave this check back to me a few weeks ago.

- Abstract on web site; www.azcep.org

2012-1 Completed, 1 never finished

-$1000 awarded to Dr. Javia Larsen; Advisor Dr. Matthew Berkman (UofA South Campus) - Ketamine and Morphine versus Morphine Alone for Treatment of Acute Pain in the Emergency Department

8/2014

Dear AzCEP Board,

Since receiving the AzCEP seed grant, the ketamine project has had many successes. When we applied for the grant, our research project was just an idea. Since that time we received IRB approval and recruited Emergency Department patients into our double blinded, placebo controlled study.

The grant allowed us, among other things, to purchase the study drug and also to purchase point of care pregnancy tests to allow us to include women of child-bearing age in our study. We performed a preliminary analysis of our data, which showed a statistically significant improvement in pain control in patient’s receiving ketamine.

The research was presented at the University of Arizona Department of Emergency Medicine Resident Research Forum. Our abstract (attached) has also been accepted for presentation at the 2014 ACEP Research Forum in Chicago, Illinois.

We are very grateful to the AzCEP seed grand for supporting our research agenda on the use of ketamine for the treatment of acute pain in the Emergency Department.

Sincerely,

Jaiva Larsen

- Abstract on website; www.azcep.org
(-$1000 awarded to Dr. Pedro Roque and Dr. Anne Klokow; Advisor Dr. Teresa Wu (MMC) - Use of Lung Ultrasound for the Diagnosis of Pneumonia by Non-expert Emergency Medicine Ultrasonographers)

- 8/2014; The study is going well and is proceeding as planned. We have had a difficult time enrolling patients with a pneumonia on CXR that undergo a subsequent CT scan since it is rare (but not unheard of) for patients to require a CT after they have been diagnosed with pneumonia. Similarly, we are still in the process of enrolling patients who have a normal CXR but still undergo a CT scan of their chest. These are usually patients who are getting evaluated for a PE or trauma. We do have 17 patients enrolled as of the last review I performed. We will definitely finish this study and publish the results. We are in the process of recruiting interns and residents to help out with the study now that Dr. Roque and Dr. Klokow have graduated and moved out of state. I anticipate we will have some more information and updates for the Board over the next few months now that the academic year is underway. (per Dr. Wu)

- 7/2015; Please let the board know that the pneumonia study is still in revision, but that it will be submitted for publication in the near future. (per Dr. Wu)

- 4/16; The study wrapped up before I transitioned from Maricopa to Banner University Medical Center-Phoenix. Let me know if you need any other information. (per Dr. Wu).

- I have not been able to get any further information from any of my Maricopa contacts. (Stephanie)

2013-Both Completed

(-$1000 awarded to Dr. Pedro Roque; Advisor Dr. Dan Quan (MMC) - A Randomized Trial of IV Ibuprofen and Morphine Combination Therapy in Patients Presenting to the ED with Renal Colic)

- 7/2015; UA of medical student Calliandra Hintzen, MD wrote the following thesis and presented her poster at the UA Phoenix research day. Thesis and poster on website: www.azcep.org

(-$1000 awarded to Dr. Chris Crowe; Advisor Dr. Ben Bobrow (MMC) - Improving ED CPR Quality Utilizing Real-time Audiovisual CPR Feedback)

6/2015;

Dear AzCEP Colleagues –

I am very proud of what Dr. Crowe has done with your generous grant to him in 2013. This is an incredible example of how the AzCEP Residency Seed Grant Funding can help highly motivated EMS residents conduct meaningful EM research.

In Chris’s case, he dramatically improved resuscitation quality inside the ED and his recent peer reviewed publication (attached) is being held up as an example of what every ED should strive to do to save more lives from cardiac arrest. Chris has presented his research at various national meetings including the American Heart Association’s Resuscitation Science Symposium.

Additionally, he has lectured widely around the country on cardiac resuscitation and is currently developing a “High Performance-CPR University” which will be held at the UA COM-Phoenix Simulation Center on August 11th.

Thank you all for supporting him.

Best regards,

Ben

810 West Bethany Home Road, Suite #110 • Phoenix, Arizona 85013-1662
Phone/Fax (602) 336-4599 • E-Mail: azcep@gmail.com • Web Pages: www.azcep.org & www.acep.org
6/2015
Dear AzCEP,

As Dr. Bobrow mentioned, we were able to complete the study with a meaningful impact on ED resuscitation quality, publish it in a peer-reviewed journal, and expand to other opportunities for CPR quality improvement and education. Thank you for the generous and vital support that helped me to complete my study. I sincerely hope you will continue to aid Arizona Emergency Medicine Residents interested in research through the AzCEP Seed Grant program.

Again, thank you.
Chris Crowe MD, MPH
• Abstract can be found on web site: www.azcep.org

2014-1 completed, 1 not able to complete

-$1000 awarded to Dr. Clifford Ellingson; Advisor Dr. Dale Woolridge (UofA) - The Identification of Biological Markers of Acute Fracture in Children

• 5/16: The first run did not reveal data that supported our hypothesis. However there were some difficulties in the assay. We just secured funding to run additional assays. We are going to run the second test with the same enzyme and the kit has been ordered. We are then going to move towards additional markets if this second run confirms that the market is not elevated. We will forward results once we get them.
• 8/16: The data looked decent. We have ordered another kit and will be running it again when the kit arrives, likely next week
• 11/16: We were able to run the assay on nearly 40 patient samples. Our preliminary results showed no difference in n-terminal protein levels and thus rejecting our hypothesis. We are going to run the assay one more time with higher sample concentrations to confirm our findings.
• 5/17: We had some promising results with the last two assays. There appears to be some correlation, particularly with Lower limb bone fractures. Results will be presented later this week at national SAEM as an oral presentation. Summary slide in file and on website.

(-$1000 awarded to Drs. Jennifer Prosser, Ryan McDermott and Hannah Malashock; Advisor Dr. Brad Butler (MMC)) - Nebulized Epinephrine VS. Subcutaneous Epinephrine in the Treatment of Acute Allergic Reactions

• 4/16: We just received new study medications recently and two new research assistants are being credentialed/approved to assist in enrolling patients. That being said, unfortunately we still have been unsuccessful in enrolling patients into the study. We are still hopeful that additional encouragement to the faculty doing triage shifts (where most of the potential patients can be enrolled) and increased encouragement in the Peds ED will help us to enroll more patients and eventually complete the study.
  We do not have any data or abstracts to submit for the upcoming annual meeting in June but will submit them to AzCEP when available. R/Brad
• 11/16: nothing to report
• 5/17: All: We have received continued IRB support of our project and are about 20% complete towards our goal of patients to complete the study. Dr. Henderson, one of our newest Chief Residents, is now the resident coordinator. We are making great progress now that we have more research assistants helping as well as more attendings certified to assist with the study. R/Brad
• 9/17: Still enrolling new patients. Brad
• Not able to complete
2015-1 couldn’t finish, 1 in works

(-$1000 awarded to Dr. Vijay Kannan; Advisor Dr. Carl Mitchell (MMC)) - The MIHS Disease Surveillance Network

- 11/16; no response
- 5/17;

Hello all,

I sincerely apologize for the delay in our response. Dr. Mitchell and I have been discussing how to proceed. We implemented the surveillance system in 7 different Family Health Centers and one Urgent Care center. The data retrieved was seamlessly integrated into an online, cloud-based database and automatically geospatially analyzed and displayed on a website with an easy-to-use interface. Unfortunately, the compliance rate from the individual facilities was extremely poor. We received good data from 2 facilities, and from those only for a one month period. The remainder of the facilities were unable to routinely collect data. There was no process malfunction, it appears to have been entirely noncompliance related. At this point we are discussing reinstating the project at the MIHS Emergency Department, or moving to another external site. We will keep you better updated in future.

Sincerely,
Vijay Kannan

- 9/17; Unfortunately at this point it seems that the study did not produce a publishable result. While we were able to create a data collection instrument and obtain some data, the compliance was extremely poor from our partner sites and therefore the dataset is incomplete and not able to generate a meaningful study. We hope to take the lessons learned from this process and apply them to a future variant on theme, but at the moment there are no concrete plans. I have since left Arizona and am now working in Massachusetts, but I maintain my connection with Dr. Mitchell for this type of work, and therefore am hopeful to resurrect this in some form in the future.

Sincerely,
Vijay

-$1000 awarded to Dr. Elaine Situ-LaCasse; Advisor Dr. Srikar Adhikari (Banner UMC) - Deriving a simplified sonographic approach for the identification of diastolic dysfunction in patients with dyspnea or chest pain in the Emergency Department

- 11/16;

Hello Stephanie,

Thank you for your email.

We have received IRB approval for the initial proposal, and as we were preparing to train the physicians to perform the echocardiograms to begin data collection, we were alerted to new recommendations made by the American Society of Echocardiography and European Association of Cardiovascular Imaging that would simplify our study, allowing higher feasibility of completion in a timely fashion.

Source:

Because of these guideline updates, we made amendments to the initial IRB proposal and are currently in the process of having these changes approved by the IRB.

I apologize for the delay, but we wanted to have a high quality project that is most up to date and feasible to complete in a timely fashion.

I will email you once we have acquired IRB approval of the amendments and start data collection.
Please send our thanks to the AzCEP board for their constant support, and we look forward to sending them our results!

Thank you again.

Elaine

- 5/17; I apologize for the delay in starting the project. We are about to submit our amendments to the IRB. I appreciate the board's patience with this.
- 10/17; So sorry for the delay in response. We have temporarily placed this project on hold for an amendment in protocol. I plan on submitting the amendment to the IRB within the next month so we can proceed with patient enrollment. I appreciate AzCEP's continued support and apologize for the delay.
- 7/18; We will be rolling out the steps to enroll patients in the Emergency Department soon, after this month of new resident and fellow orientations. Thank you so much for your patience. Elaine
- 6/19; Great news! All amendments have been approved to the original IRB. This step took longer than anticipated. I have also recruited a medical student to enroll patients in the ED. We are set to start enrollment next week!
- 2/20; Thanks for checking in, Stephanie! I have enrolled 22 patients at this point. I had to take a break for maternity leave. We should hopefully be starting back up soon. Elaine

2016-2 awarded; only funded 1

-$1000 awarded to Dr. Georgia Perrian (Dr. Whitney Robertson); Advisor Dr. Noah Tolby (Banner UMC) - The Effects of Dexamethasone on the Time to Pain Resolution in Dental Apical Abscess

- 3/17; IRB approval and check presented May 2, 2017
- 7/18; provided PPT from WSAEM conference from our preliminary data
- 6/19; We still need 20 more patients to enroll. There have not been any further articles/presentations since last year as we are waiting to get the last 20 patients, then will finish the paper
- 2/20; We've finished enrolling patients and have analyzed the data. Currently finishing the paper and should be submitting for publication soon! The results are promising. (Dr. Tolby)

(-$1000 awarded to Dr. Priti Patel and Lindsey Retterath; Advisor Dr. Vivienne Ng (Banner UMC) - A comparison of intranasal ketamine versus midazolam for pediatric procedural sedation

- 5/17; Awaiting IRB approval
- 7/17; Received word of their IRB approval but the study was changed from the submitted format and it fell into a new fiscal year, so they were asked to reapply. NO FUNDS DISPERSED

2017-1 awarded & completed

-$1000 awarded to Drs. Chea, Carter Powell and McElhinny; Advisor Dr. Kara Geren (Maricopa) - A comparison of video education versus written pamphlet in encouraging opioid abusers to fill prescriptions for take home naloxone

- 7/18; AzCEP Board,
We thank you for your continued support of our project as well as the opportunity to update you on the progress our project! Enrollment continues for study participation with Spring 2018 an interim analysis included in presentations at both Arizona Public Health Association 2018 Spring Meeting and Maricopa Academic Excellence Day 2018. As we move toward completing data collection we continue to meet and mitigate challenges in both patient recruitment as well as encouraging patients to fill their naloxone prescriptions. This project has gone on to inspire additional efforts in the inpatient setting for resident and faculty education to ultimately increase naloxone prescriptions from the inpatient setting. Attached to this email you will find the poster presentation by Megan McElhinny and presentation abstract by Ashley Carter-Powell. Again we thank you for continued interest!

Warmly,
Drs. McElhinny, Carter-Powell and Chea

- 6/19, Abstract
- Poster presented 10/19

2018-1 awarded

-$1000 awarded to Dr. Michael Wyman; Advisor Dr. Mazda Shirazi (UofA South) - STORM; Stemming the Tide of Opioid Related Mortality in Arizona

- 6/19; Thank you for checking in. The STORM project is proceeding apace, but we do not have any formal abstracts, papers or reports to send along at this time. We are still in the data collection phase; here is a brief update of where things stand:

- We are actively collecting data for 438 patients, confirmed opioid-related overdose deaths in 2016 and 2017 in Arizona (in Pima County and the other counties handled by Pima County Office of Medical Examiner).
- We are searching these patients in AZPMP Aware database, Cerner EMR database, and the AZ Poison Control Center database.
- We have brought on 2 medical students to help us with the data collection.
- We have completed a literature review and identified externally-validated risk factors for opioid overdose.
- Our plan for initial publication, targeting the end of this calendar year, is a Retrospective Case Series comparing AZ opioid-related overdose deaths with the externally-validated risk factors.
- We are also working to develop a grant proposal for the Blue Cross Blue Shield Innovation grant to expand the project. These funds would allow us to build a module in Cerner to screen ED patients for identified risk factors, and perhaps enable the AZ OAR resource to initiate outbound interventions for at-risk individuals.

Please let me know if you would like clarification on any of the above, or have any additional questions.
Thank you, Michael

- 2/20; In a nutshell, the project is moving forward, albeit more slowly than we hoped or planned for. We hit an administrative roadblock with the Arizona PMP Aware database that was holding up our data collection phase, but have found a work-around and are now back on track. We hope to finalize data collection over the next couple of months, and then complete data analysis, followed by drafting and submitting for publication, hopefully this spring. Once this initial work is completed, we will again be looking to expand the project.
Michael
2019-1 awarded

-$1000 awarded to Drs. McElhinny, Weidenbach, Cummingham, Hong Chen and Monica Sadhu; Advisor Dr. Carl Mitchell (Maricopa) - Resident Mentorship of Student Interpreters to Improve Minority Recruitment and Department Efficiency
# AzCEP Guest Lecture Opportunities-2020

AzCEP scholar members can be available for education directed to your physician group, training program and staff. The below listed members have agreed to have their areas of expertise available to your conferences and meetings. To make contact, please email Stephanie (azcep@gmail.com) to arrange contact with the speaker of your interest. Scheduling and travel should be arranged directly between the lecturer and contacting body.

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<tr>
<td>John Ashurst, DO, FACEP</td>
<td>Residency Director, KRMC</td>
<td>Research and various other journal club topics such as sepsis, appendicitis, intubation</td>
<td>Academic; Kingman Regional Medical Center</td>
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<td>Patty Bayless, MD, FACEP</td>
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<td>Bioethics series (Advance Directives, DNR, Delivering Bad News, Futility/withdrawal of care, informed consent/Surrogates/capacity, Med Education/research, Pharmaceutical industry interaction, Justice/rationing, truth telling/empathy, culture/conflict, communication/confidentiality, donation after cardiac death, duty, professionalism)</td>
<td>Academic; Maricopa Medical Center</td>
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<td>Brad Butler, MD, FACEP, CDR MC (FMF), USN</td>
<td>Associate Professor-University of Arizona College of Medicine(Phoenix) Faculty- Maricopa Medical Center Emergency Medicine Residency EM Specialty Leader- Navy Reserve Medicine</td>
<td>Lessons Learned in War Emergency Care of Working Dogs</td>
<td>Academic; Maricopa Medical Center Rural; White Mountain Regional Medical Center Military; US Navy Reserve (4 deployments- MTF, Role II, Role III, COVID19 Response/Javits Center/NYC)</td>
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<td>Franco Castro-Marin, MD, FACEP</td>
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<td>Spinal Motion Restriction Medical Oversight of EMS Mobile Integrated Healthcare Practice Urban Search &amp; Rescue</td>
<td>Private; HonorHealth Scottsdale</td>
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<td>Peter DeBartolo, MD</td>
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<td>Catching Up: Finances for the Young EM Attending</td>
<td>Private; HonorHealth Scottsdale</td>
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<td>Paul Kozak, MD, FACEP</td>
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<td>Cancer/coagulopathy and Transplant Care Motorsport medicine Suture Lecture</td>
<td>Private; Mayo Clinic</td>
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<td>Steve Maher, MD, FACEP</td>
<td>Cert. EMS Physician, Flight Physician</td>
<td>Flight Medicine, Medical Mission Trips, ETCO2</td>
<td>Private; Mayo Clinic</td>
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<td>Frank Paul, DO, FACEP</td>
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<td>Over 250 lectures on: Trauma General EM Pediatrics Anatomy &amp; Physiology EMS lectures Full Osteopathic Medical System Lecture Series Anatomy/OMM Lectures</td>
<td>Private; Schumacher Clinical Partners</td>
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Contact azcep@gmail.com for full list
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<td>Dale Woolridge MD, PhD, FACEP</td>
<td>Associate Professor of Emergency Medicine and Pediatrics</td>
<td>Pediatric Orthopedic Injuries</td>
<td>Academic; Banner UMC-Tucson</td>
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