



UROOP Newsletter

Official Newsletter of the Undergraduate Research Opportunities Program at the University of Hawai'i at Mānoa

Office Information

- Location: Moore 107/108
- Office hours:
10:00 am - 3:00 pm, M-F
- To schedule an appointment, please email us 24 hours in advance
- Student desks and meeting spaces available during office hours

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In the Spotlight

Get to know the individuals involved in research and creative work at UHM

The University of Hawai'i at Mānoa (UHM) boasts ground-breaking research and thought-provoking creative work from a diversity of fields. Our students and faculty are using aquaculture to reduce dependency on wild-caught fish for the pet trade (p. 3), studying coral reef stressors to find ways to better protect reefs (p. 7), and working with minority ethnic groups to bring real life stories to the theater (p. 4-5). Behind all these achievements are individuals who dedicate tireless hours to this work. The Undergraduate Research Opportunities Program (UROOP) is proud to introduce readers to these researchers and creatives in this edition of our newsletter.

The UROOP newsletter is only one of many ways to learn more about the work conducted by UHM undergraduate students. Completed projects and presentations funded through UROOP are listed online on our Past Projects and Presentations page.

UROOP also selects a student project or presentation to feature on our Facebook and Instagram page approximately once a month. Check out these resources and get to know some of the amazing individuals behind UHM's many contributions to science, the arts and humanities, and more.



Photo: Nosu Yi youth perform shadow puppetry in Xichang, China, as part of a collaborative theatre project with Professor Mark Branner and undergraduate theatre students from UHM. **Photo credit:** Emma Torgimson-Lee

UROP has moved!

The UROP office has moved from its Hawai'i Hall location! As of January 31, 2020 the UROP office is located in Moore Hall 107 and 108. All other contact information will remain the same. We continue to welcome students to walk-in, schedule appointments, or call during regular hours from 10:00 am – 3:00 pm Monday-Friday. Walk-in appointments are welcome in room 108. Students may also schedule appointments beforehand with Seung Yang and Hyang Yoon in room 108, or Jessie Chen in room 107.



Photo: Moore Hall

Photo credit: Cassie Ordonio / Ka Leo O Hawai'i

UROP CONTACT INFORMATION:

MOORE HALL 107 AND 108
1890 EAST-WEST ROAD
HONOLULU, HI 96822
(808) 956-7492
UROP@HAWAII.EDU

UROP is hiring a Communications Assistant!

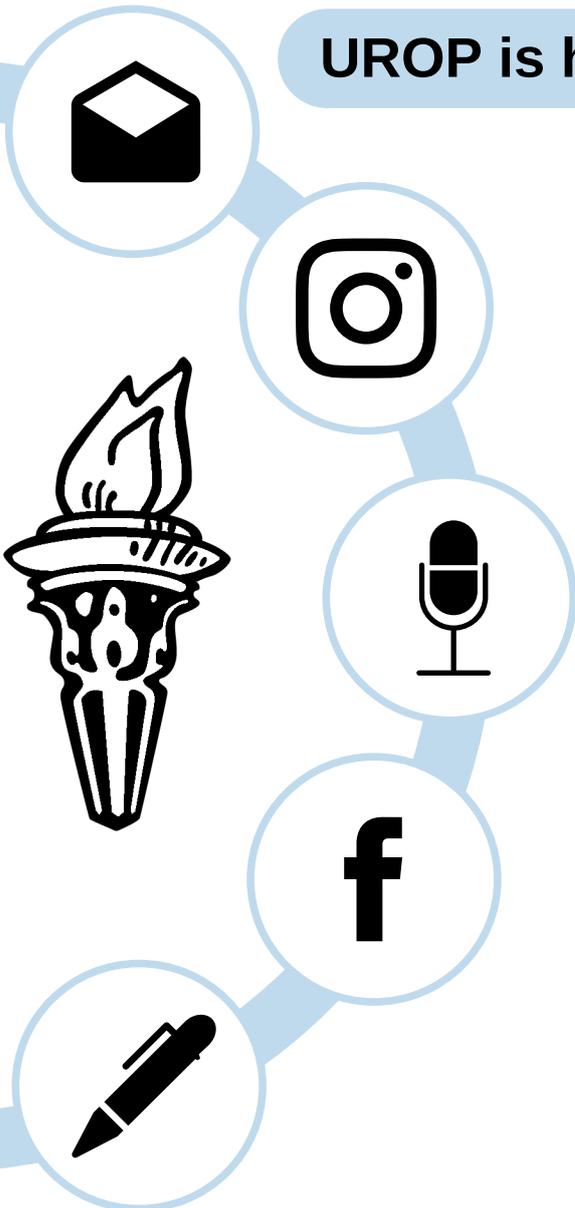
UROP is hiring a part-time Communications Assistant! The desired candidate must be enrolled at least half-time as a UHM undergraduate, and have demonstrated knowledge in social media platforms and desktop publishing. The Communications Assistant is responsible for actively promoting UROP to student organizations and the larger University community, and managing UROP's social media campaign. The employee will work 15-20 hours a week at the UROP office. The full job description can be found at sece.its.hawaii.edu by searching Job Number 247046.

Start ASAP

\$13.05 / hour

15 - 20 hours / week

APPLY BY MARCH 13



A hui ho, Kacie!

We bid Kacie Manabe farewell as she moves on to focus on her graduate studies. Kacie joined the UROP team in October 2019 as our Communications Assistant, where she balanced work duties with her academics and extracurricular activities. She is a joint BA/MA candidate in Political Science and a BA candidate in Asia/Pacific History at UHM. She currently serves as a Senator-at-Large on ASUH, the undergraduate student government



Kacie Manabe

at UHM, and volunteers as an esports coach at 'Iolani School for the Overwatch teams. Kacie has been a vital part of the team, and will be missed. Mahalo, Kacie!

A message from the UROP Director

Dr. Creighton M. Litton

Aloha mai kākou! The Spring 2020 issue of the UROP Newsletter is full of great information on both tried and true, and new and exciting opportunities for undergraduate students and faculty mentors at UHM. For students, we are at the end of a Project Funding cycle (deadline: March 3, 2020) (p. 10), and continue to run a monthly Presentation Funding Cycle (deadline: 1st day of each month) (p. 10). See this issue for a number of stories on past and current UROP funding recipients to hear more about the great work they are doing under the mentorship of UHM faculty (p. 3-5, 7). For both students and faculty, we are pleased to run the Faculty Mentoring Grant program again in 2020 for eligible UHM faculty mentors to apply for funding to support undergraduate students conducting research or creative work projects under their mentorship in the summer (p. 6). Last year, UROP received >\$250,000 in requests for \$75,000 in available funding. We anticipate that the competition will be fierce again this year. Speaking of eligible UHM faculty mentors, UROP has received much feedback from the campus community to consider expanding the eligibility rules for mentoring UROP-funded students. Accordingly, last year we added any Graduate Faculty to the original eligibility requirement to be tenured/tenure track faculty at UHM. This year, we are expanding this even more to allow any official UHM faculty affiliate to petition to be eligible to mentor UROP-funded UHM undergraduates (p. 6). Finally, we are very pleased to announce the new Faculty Award for Excellence in Mentoring Undergraduate Research and Creative Work at UHM. This award has been a long time in coming, and will allow our campus to recognize the incredible mentorship that our faculty provide to our undergraduate students (p. 6). Mahalo nui loa to the students, staff and faculty at UHM that make our campus a great place to study, work and engage in scholarship.

Douglas S. Yamamura Scholarship

UROP is honored to present the Douglas S. Yamamura Scholarship to outstanding undergraduate students enrolled in any field of study who are engaged in UROP-funded research and creative work projects. The scholarship was established with a generous endowment from the estate of Paul T. Yamamura to support scholarly research at UHM.

Each academic year, UROP considers all project funding applicants for the prestigious Douglas S. Yamamura Scholarship and selects the best STEM and the best non-STEM student or student group to receive the scholarship. In an effort to support continued education of local students, preference is shown to undergraduate students who have graduated from a high school in Hawai'i.



Lauren Block

The AY19-20 Douglas S. Yamamura Scholarship recipient for a STEM project is Lauren Block. Lauren's project entitled "Optimizing Larval Fish Rearing with Copepods" investigates developing a system to care for larval reef fish for marine aquariums, specifically focusing on clownfish as a model organism. Lauren studies Marine Biology at UHM and is mentored by Dr. Daniel Hartline (Pacific Biosciences Research Center).

"The aquarium industry is invaluable for communicating and promoting ecological and conservational awareness to the general public. My hope is to further the sustainability of the industry by providing alternatives to wild-caught fish through the advancement of marine ornamental aquaculture."

- Lauren



Dr. Creighton M. Litton

STUDENT AND FACULTY SPOTLIGHT

with Professor Mark Branner and students Emma Torgrimson-Lee, Amanda Allen, and Alexis Chong Tim



Theatre and Dance Professor Mark Branner and students work with Nosu Yi youth to combine life and theater in Xichang, China

From July to August 2019, Professor Mark Branner's students received more than an out-of-the-classroom learning experience when they traveled to Xichang, China. The course "Seminar in Theatre for Young Audiences" introduced undergraduate students to theatre performance under Professor Branner's non-profit, CiRCO Redempto. Since 2005, CiRCO Redempto's mission has been to provide a space for children and adults from the Nosu Yi minority ethnic group in Central China. Working out of Xichang, Sichuan Province, students engaged directly with Nosu Yi youth to create plays and performances based around life stories and social issues, including topics such as HIV/AIDS awareness and gender inequality in education. Students and locals performed "Going Home" and "Family," plays revolving around the theme of family. The acts were incorporated into the Mountain Village Theatre Tour. Performers visited their own families and villages as well as other Nosu Yi communities. The tour provided a unique opportunity for all participants to perform theater for a good cause (*continued on page 5*).

Above: Nosu Yi minority youth pose for a picture together in Sichuan Province, China in summer 2019

Below: Professor Mark Branner (top center) with UHM undergraduate students Emma Torgrimson-Lee (not pictured), Amanda Allen (3rd row, far left), Alexis Chong Tim (bottom row, far left) and Nosu Yi youth involved in the collaborative project under CiRCO Redempto
Photo credit: Amanda Allen



(continued from page 4) Undergraduate students Amanda Allen, Alexis Chong Tim, and Emma Torgrimson-Lee gained practical creative work experience as part of the CiRCO Redempto project. The project provided students the chance to engage in hands-on work in the arts while receiving strong mentorship.

Right: Members of the Nosu Yi minority use shadow puppetry to depict a car driving over hills



"I am beyond grateful for the opportunity I had to participate in the Theatre for Young Audiences trip to XiChang this past summer. I gained so many treasured memories and enriching academic and personal experiences with the Nosu students as a mentor and with my fellow UHM students as a peer. This was by far one of the most rewarding and humbling experiences of my life. It has profoundly impacted my ongoing research in the dance department and professional goals and I am forever thankful to the Undergraduate Research Opportunities Program, the University of Hawaii at Mānoa, and Professor Mark Branner for making it possible." - Amanda



"It took a great deal of research on our part to figure out what sort of questions would be applicable and impactful for the students- being not only residents of China, but Nosu Yi, with an incredibly unique perspective... ultimately, they all brought back similar reasons for being proud of being Nosu: having their own language, being hard workers, having a rich culture of healers and dancing and singing, and having a tight-knit community." - Emma



Top: Professor Mark Branner (center) and students take a break to enjoy some watermelon

Middle: Professor Mark Branner (top row) and undergraduate students Amanda Allen (2nd row, 2nd from left), Alexis Chong Tim (2nd row, 3rd from left), Emma Torgrimson-Lee (2nd row, 4th from left), graduate students Katherine Altman (2nd row, 2nd from right) and Rui Yao Li (2nd row, far right), and Nosu Yi students collect wood to burn at the Nosu "Torch Festival"

Bottom: UHM students perform a skit as part of a collaborative theatre project with Nosu Yi minority youth

Photo credit (top): Amanda Allen

Professor Branner supported the students in part with funding from a UROP 2019 Faculty Mentoring Grant for Summer Undergraduate Research and Creative Works (Faculty Mentoring Grant). Funds were used to pay for airfare, ground transportation, lodging, and materials and supplies costs.

In 2019, UROP awarded a total of \$75,000 in Faculty Mentoring Grants to eligible UHM faculty members who mentored undergraduate student research and creative work projects, with identical funding available for 2020 (p. 6).

OPPORTUNITIES FOR Faculty

REQUEST FOR PROPOSALS: \$75,000 AVAILABLE IN FACULTY MENTORING GRANTS

UROP is committed to promoting and expanding research and creative work opportunities for undergraduate students across campus. To increase undergraduate student participation in these opportunities during the summer, UROP is awarding \$75,000 in Faculty Mentoring Grants for Summer Undergraduate Research and Creative Works (Faculty Mentoring Grant) in 2020. These grants will be awarded to eligible UHM faculty who will mentor UHM undergraduate students conducting research and creative work projects in Summer 2020.

Faculty across all disciplines at UHM may apply for up to \$5,000 per undergraduate student mentee for up to 3 mentees, or a maximum of \$15,000 for 3 or more mentees. All funds are to be used to directly support the undergraduate student's project in Summer 2020 (e.g., acceptable expenditures include materials and supplies, travel costs, and wages for students; non-allowable expenditures include faculty summer salary and travel, student tuition, and any expenses not directly related to the student's summer project). Successful applicants will demonstrate a clear student recruitment plan and a strong mentorship plan.

The deadline to submit a proposal is Monday, March 2, 2020 at 9:00 am. To learn more, visit <http://go.hawaii.edu/pPA>.

NEW PETITION EXPANDS ELIGIBILITY FOR UROP FACULTY MENTORS

UROP is pleased to announce a new Faculty Mentor Eligibility Petition that expands the eligibility criteria for prospective UROP faculty mentors. Current eligible faculty mentors must be either tenured/tenure-track faculty at the University of Hawai'i at Mānoa (UHM), and/or Regular or Cooperating Graduate Faculty at any level classified by the UHM Graduate Division. This new petition allows UHM faculty who do not meet current criteria to apply to become official faculty mentors to students funded by UROP. Petitioners must be an official UHM faculty affiliate, and must submit all necessary petition documents at least 2 weeks prior to submitting a: (i) Project Mentor Form, (ii) Presentation Recommendation Form, or (iii) Application for Faculty Mentoring Grants for Summer Undergraduate Research and Creative Works. Once a petition is granted, eligibility remains valid as long as the faculty maintains Affiliate status, or until further notification from the UROP. The Faculty Mentor Eligibility Petition is available now. Learn more at: <http://go.hawaii.edu/GkA>.

Submit nominations now for brand new faculty award for excellence in mentoring undergraduate research & creative work

UROP is pleased to announce the creation of a Faculty Award for Excellence in Mentoring Undergraduate Research and Creative Work. This award will be given to up to two tenured/tenure-track faculty mentors at the UHM each academic year (one from a STEM discipline, and one from a non-STEM discipline) that have shown dedicated and sustained excellence in faculty mentoring of undergraduate students in their research and creative work endeavors. Student-nominated faculty awards will be in the amount of \$500 per award. Faculty must first be nominated by an undergraduate student mentee, and a subset of nominees will then be asked to complete full applications.

The deadline for undergraduate students to nominate faculty for this award is Friday, February 28, 2020 by 5:00 pm. Faculty asked to submit a complete application package will be notified by March 15, 2020, and the deadline for submitting a complete faculty application will be March 31, 2020 by 5:00 pm.

Please go to the following link for more information on nomination and application requirements and processes:
<http://go.hawaii.edu/3kA>

UROP Alumnus Highlight

Zach Quinlan

Following their research or creative work experiences, UROP alumni have advanced to graduate and professional schools, presented at conferences, published peer-reviewed papers, and launched their professional careers based on their UROP projects. This segment features a UROP alumnus, Zach Quinlan.

Zach Quinlan graduated from UHM with a Bachelor of Science in Marine Biology in the Spring of 2017. During his time at UHM, Zach received project funding from UROP to pursue two different research projects under the mentorship of Dr. Craig Nelson (Oceanography), and he published two first-authored manuscripts from this work. Zach's research investigated chemical exudation by coral reef community members under the context of reef preservation and restoration. He presented his findings at four separate off-campus conferences including The International Coral Reef Symposium (2016), American Society of Limnology and Oceanography (2017), and the Western Society of Naturalists Meeting (2017 & 2019).

Both of Zach's undergraduate projects have been expanded into chapters for his current Ph.D. dissertation, which he is working on at the University of San Diego and San Diego State University joint-doctoral program. His current research is supported by the National Science Foundation Graduate Research Fellowship Program (NSF GRFP) which he received in 2019. This fellowship has allowed him to conduct his research in both the Central Pacific and Caribbean on islands such as Mo'orea and Curaçao. The support provided by UROP and the amazing mentorship of Dr. Nelson set the framework that allowed Zach to explore his scientific aspirations to protect coral reefs.



Top: Zach examines tubes connected to measurement equipment
Bottom: Zach prepares sampling gear at Coconut Island in 2016

"Conducting my research with a supportive and collaborative group helped me develop both professionally and personally. Moreover, applying for UROP multiple times helped me understand the grant writing process, which was vital later on when applying for the NSF GRFP. Both of these experiences in undergraduate research have set me up perfectly to continue my research in graduate school." - Zach

Register now for Spring 2020 Undergraduate Showcase

We are happy to announce that the 2020 Spring Undergraduate Showcase registration is now open!

The Undergraduate Showcase is an opportunity for all undergraduate students in all disciplines across the UHM campus to present their faculty-mentored research and creative work via oral and poster presentations (and other media) in a professional conference venue. This event is held at the end of both Spring and Fall semesters and is sponsored by the Honors Program, Office of Undergraduate Education, and UROP, Office of the Vice Chancellor for Research.

To learn more, visit:

<https://manoa.hawaii.edu/undergrad/showcase/>



Photo: Undergraduate students and their faculty mentor (far right) present a poster at the Spring 2019 Undergraduate Showcase

DATE: FRIDAY, APRIL 24, 2020

TIME: 10:00AM - 3:45PM

LOCATION: EAST-WEST CENTER IMIN CONFERENCE CENTER

REGISTRATION DEADLINE:

FRIDAY, MARCH 13, 2020 AT 11:59PM

CELEBRATE UNDERGRADUATE RESEARCH WEEK APRIL 20 - 24

Attend CTAHR Research Day

DATE: MONDAY, APRIL 20, 2020

TIME: 8:00AM - 5:00PM

LOCATION: CAMPUS CENTER BALLROOM

Join the College of Tropical Agriculture and Human Resources (CTAHR) for Research Day! the event allows students to present findings, exchange information and incorporate knowledge from the classroom into their real world research and creative works.

Learn more: cms.ctahr.hawaii.edu/research-day

Participate in UROP-funded project while studying abroad

Students may be aware of UROP and the UHM Study Abroad Center as two separate resources on campus, but may not know that they can utilize both programs simultaneously. Students who plan to study abroad may consider taking advantage of their unique location to conduct a research or creative work project. The Study Abroad Center enables undergraduate students to receive UHM course credit at designated foreign universities during the academic year and the summer. Students who also plan to do research or creative work at the same location under the mentorship of an eligible UHM faculty mentor can apply for UROP project funding.

Students interested in taking a Study Abroad Center study program while simultaneously receiving UROP project funding must plan accordingly. It is critical that students meet eligibility requirements for both programs, and complete applications for each in a timely manner. Study Abroad Center offers both semester-long and yearlong study programs, with varying application deadlines. The UROP project funding application cycle is open twice annually from 9/9 – 10/10 and 2/2 – 3/3. A student wishing to conduct research on a Spring Study Abroad Program, for example, would need to apply for UROP funding the prior Fall.

To learn more, visit:

- Study Abroad Center: www.studyabroad.hawaii.edu
- UROP Project Funding: go.hawaii.edu/mkA





STUDENT OPPORTUNITY CENTER

UHM's one-stop-shop to post and search for research and creative work opportunities

In Fall 2019, UROP launched the Student Opportunity Center (SOC), UHM's online database of undergraduate research and creative work opportunities. The launch was a success: within the first month, 690 users activated their accounts, 2,689 individual searches were conducted, and 745 listings were viewed by users.

The SOC is a campus-specific subscription service available to the Mānoa campus only, courtesy of UROP. The SOC curates a national database of thousands of opportunity listings, including: undergraduate research and creative work opportunities, internships and co-ops, conferences, seminars, publication outlets, and more. Listings cover a diversity of fields, and cater to students at any stage of their research and creative work endeavors. The SOC also hosts a UHM-specific database where faculty can post their own opportunities. This is an ideal place to recruit undergraduate students to work in labs, creative spaces, or elsewhere.

UROP invites all UHM undergraduate students, faculty, and staff to utilize the SOC. Learn more at: go.hawaii.edu/GCg



Student Opportunity Center

Use the National Database to search 7,500+ national opportunities

Use the UHM Database to search or list UHM-specific opportunities

SOC STATISTICS TO-DATE

- **Active users:** 773
- **Searches conducted:** 4,395
- **Listings viewed:** 1,860
- **Faculty-generated listings:** 12
- **Total internal UHM listings:** 65

Attention faculty: Calling for opportunities!

Faculty, do you have open positions in your lab or creative space? Are you looking for student help with field work or film production? The Student Opportunity Center is the perfect place to advertise research and creative work opportunities to undergraduate students at UHM. The SOC allows you to customize listings and provide details such as compensation, position requirements, application deadlines, and more.

Benefits of using the SOC:

- Free
- Listings viewable by UHM undergraduates, staff and faculty only
- Keyword tags make it easy to search opportunities
- Automatically generates webpage for each listing
- List paid or unpaid positions
- Edit listings any time

FOLLOW THE STEPS BELOW TO POST YOUR OPPORTUNITIES ON THE SOC NOW

1. Visit StudentOpportunityCenter.com
2. Sign in with your @hawaii.edu email address to receive an activation link
3. Activate your account and create a unique password
4. Email urop@hawaii.edu to request Admin access – once granted, you can create listings directly on the website any time

OR

1. Fill out the form at go.hawaii.edu/AeG and UROP staff will post your opportunity for you

Highlighted Opportunities

UROP PROJECT FUNDING

go.hawaii.edu/mkA

- Funding available for UHM undergraduate students or student groups to work on research or creative work projects
- Create a graphic novel, write a play, or investigate climate change. Design your own project with your faculty mentor!
- Must be mentored by eligible UHM faculty
- Get funded up to:
 - \$5,000 per individual
 - \$10,000 per group
- Application cycles:
 - Fall: 9/9 - 10/10
 - Spring: 2/2 - 3/3

UROP PRESENTATION FUNDING

go.hawaii.edu/AkD

- Funding available for UHM undergraduate students or student groups to present ongoing or completed research or creative work at local, national, and international professional venues
- Must be accepted to present or perform at a professional venue
- Get funded up to:
 - \$2000 per individual
 - \$4000 per pair
 - \$5000 per group
- Deadline: 1st of each month by 5:00pm (students are strongly encouraged to apply at least 2 months prior to the presentation/event date to receive a decision prior to the event)

TO VIEW THESE OPPORTUNITIES AND MORE:

studentopportunitycenter.com

1. Visit the Student Opportunity Center website
2. Create an account with your valid @hawaii.edu email address
3. Search for opportunities, or click the links in the previous listings to navigate directly to an opportunity page

LEARN MORE ABOUT THE STUDENT OPPORTUNITY CENTER

go.hawaii.edu/GCg

SPRING 2020 UNDERGRADUATE SHOWCASE

manoa.hawaii.edu/undergrad/showcase

- Present your research and creative work at the most heavily-attended undergraduate student presentation venue at UHM
- Gain valuable peer, community and faculty feedback
- Free and open to all undergraduate students in any discipline at UHM
- Accepting abstracts for oral and poster presentations
- Deadline to register: 3/13/20 at 11:59pm
- 4/24/20 @East-West Center, 9:30am - 3:45pm

PROJECT KUALIMA EDUCATOR PROFESSIONAL LEARNING SERIES RESEARCH ASSISTANT

app.studentopportunitycenter.com/app/search/qAVSSQzle0tGQxTJcMor

- Spring 2020 and 2020-2021 opportunities available
- Research professional learning series for preK – 12 general and special education teachers, administrators
- Learn about proactive, systematic methods of looking for students requiring additional assistance to succeed in school
- Apply by March 3 (for Spring 2020 opportunities) or October 10 (2020-2021 opportunities)
- Contact Dr. David Royer at david.royer@hawaii.edu

RESEARCH, EDUCATION AND ADOVCACY FOR COUPLE'S HEALTH (REACH) LAB STUDENT ASSISTANTS

app.studentopportunitycenter.com/app/search/EbnzSP2jtLtFdp8eqWME

- Research relationships, couples, and improving health for LGBTQ populations
- Conduct literature reviews and learn how to write for peer-reviewed academic journals
- Attend meetings every other week under guidance of principal investigator
- Rolling deadline
- Contact Dr. Jason Mitchell at jasonmit@hawaii.edu