The John A. Burns School of Medicine's Office of Global Health and International Medicine (OGHIM) mourns with the JABSOM 'ohana the passing of our late OGHIM Director, Professor Gregory G. Maskarinec, Ph.D., on June 16, 2022. Dr. Maskarinec was a cultural anthropologist and an advocate of indigenous medicine; he taught at JABSOM for many years in the Department of Family Medicine and Community Health (DFMCH) and Native Hawaiian Health. He served as the Director of OGHIM from January, 2018, until his passing. Dr. Maskarinec will be greatly missed, and here at OGHIM, we will carry on his legacy. Dr. Junji Machi, M.D., Ph.D., FACS, serves as the Interim Director of OGHIM.

OGHIM aligns the international medical education activities of JABSOM faculty, staff and students with the school's mission, accreditation body requirements, and relevant legal regulations. We promote student appreciation of global issues that impact the health of patients and communities in Hawai'i, and we encourage students to gain experience in international health care settings. We advocate for social justice in healthcare. Memorandum of Agreements (MOAs) meeting updated UH requirements have been recently implemented. Currently, 24 medical institutions in Pacific Rim countries have MOAs with JABSOM, with 11 institutions that are pending. For the complete JABSOM report, including global health related publications in the past year and photos of activities, please see: https://jabsom.hawaii.edu/globalhealth.

Significant Achievements of JABSOM OGHIM
1. During Humanism Week, February 16 - 18, 2022, OGHIM hosted the second "Humanism, Empathy, Social Justice and Global Health Symposium," organized by Drs. Gregory Maskarinec and Emi Saegusa-Beecroft, with the assistance of the Office of Medical Education (Ms. Kori-Jo Kochi). With generous financial support from Dr. Yoshihisa Asano, PhD, and the Noguchi Medical Research Institute (NMRI), Japan, we welcomed four keynote speakers: Paul Farmer MD, PhD, Kalamaoka‘aina Niheu MD, Charles Pohl MD, and Sheryl Recinos MD. The distinguished Dr. Paul Farmer’s lecture at the “UH Better Tomorrow Speaker Series,” with 237 students and residents in attendance, was Dr. Farmer’s last public address before his sudden passing on Feb 21, 2022 in Rwanda. We mourn his loss with his family and friends.

2. The student/resident exchange program through the OGHIM resumed in November 2021, for the first time since the COVID pandemic began. Despite a number of cancellations due to travel restrictions, a total of 23 fifth- and sixth-year medical students and residents from Bali, Japan, and South Korea rotated in the JABSOM Departments of Internal Medicine, Family Medicine, and Pediatrics for a one-month reciprocal exchange program. The Department of Surgery will accept visitors this Fall. One JABSOM student participated in a one-month rotation at Guam Memorial Hospital.

3. For the 7th year, Drs. Junji Machi and Emi Saegusa-Beecroft continued to provide 30 lectures per year for the Hawaii Medical Education Program (HMEP) Open Cross Classes, now virtual, by recruiting guest lecturers from across the world. Currently, 13 Japanese Medical Schools and 4 hospital groups participate, with approximately 1000 registrants. Recordings are distributed after each lecture, reaching an even wider audience.

HMEP Open Cross Class screenshots. Top left: A live demonstration of how service dogs assist individuals living with various degrees of disabilities. Bottom left: A joint PBL seminar for three residency programs in Japan.
4. In collaboration with the JuniorSenior corporation (JrSr), which supports our OGHIM activities in Japan, OGHIM offered community outreach programs; six virtual seminars were held for the public in Japan, and a YouTube based program led by Dr. Junji Machi, now has interviews with 75-volunteer-healthcare professionals. Dr. Machi provided individual career counseling, while Dr. Saegusa-Beecroft provided medical-English education for students and residents in Japan throughout the year. Four expert-led, grand-round, virtual seminars were held and offered to approximately 3000 healthcare professionals in Japan.

5. The Shizuoka Medical Center HMEP Clinical Clerkship program, which incorporates the JABSOM curriculum in Japan every year, accepted 20 medical students across Japan. Additionally, a year-long U.S. residency preparation training program for “JS residents,” has been offered to 8 - 9 physicians per year leading to successful U.S. residency matches.

6. Dr. Junji Machi continues to oversee the long-lasting Okinawa Chubu Hospital (OCH) UH Postgraduate educational program, and the contract between UH and the Okinawa government was renewed. Eleven consultants (mostly from JABSOM) provided online and in-person visits. Dr. Machi participated virtually in the 55th graduation ceremony on March 17th, 2022.

7. We supported the Hawaii Tokai International College Medical Student training in August 2022. Volunteer JABSOM medical students served as standardized patients.

8. In September, 2022, Drs. Machi and Saegusa-Beecroft joined JABSOM Dean Hedges and Associate Dean Dr. Buenconsejo-Lum for a meeting with Consul Koutaro Matsuzawa from the Consulate General of Japan in Honolulu, and shared international medical education efforts.

9. We facilitated a total of 7 Problem-Based Learning seminars taught by Dr. Gerald Stein (University of Florida), for a group of residents from three different hospital programs; Shizuoka Medical Center, Okinawa Chubu Hospital, and the Tokyo Bay Medical Center.

Major Issues
The on-going global pandemic and travel restrictions have significantly impacted the international student and resident exchange programs, as well as in-person conference and workshop opportunities.

Future Goals

Throughout the pandemic, we saw an increase in participation of the Global Health education lecture series as we transitioned from in-person to virtual classes. Invited faculty across the globe were able to give lectures at no-cost, with minimal interruption of their work schedules. While the virtual environment cannot replace in-person interactions, continuing the hybrid format beyond the pandemic may help us expand our Global education outreach. As the world recovers from the pandemic, we also hope to resume in-person international activities in the Pacific Rim Countries in 2023.

Significant Achievements of other JABSOM Departments

Office of Medical Education (OME)

The Office of Medical Education's International Programs, formerly the Program for Medical Education in East Asia (PMEEA), works with a broad network of medical educators throughout the Asia-Pacific region. Through workshops, personal consultations, visitations, and other educational opportunities, OME fosters professional development of medical faculty and the enhancement of medical students' total educational experience.

Significant Achievements/Highlights of the Year

The global pandemic continued to significantly impact the Office of Medical Education's international programs this past academic year (July 2021-June 2022). The following annual international activities were cancelled in response international travel restrictions and UH/JABSOM protocol: Learning Clinical Reasoning student workshop, usually held in March at JABSOM, the MD5 Pacific Basic Experience, Japan elective. This elective is held for two weeks in July at three different sites: Kochi Medical School, Osaka Medical College, and Saga University School of Medicine. Eleven JABSOM MS2 students are selected for this elective. Also cancelled: the Honolulu-Uwajima Medical Learning Alliance (HULA) in conjunction with SimTiki held in February for two weeks at JABSOM, the Summer Medical Education Institute student workshop, usually scheduled for one week in August at JABSOM, the Problem Based Learning (PBL) Hawaii Style faculty workshop, usually held for three and half days in October at JABSOM, and the Hawaii International Clinical Teaching Workshop for Ibaraki Prefecture physicians, usually held for two days in October at JABSOM.

As the in-person opening session and final project presentation/closing session of the 2021-2022 Hawaii-Okinawa Medical Education Fellowship were cancelled, modified
versions via Zoom were held in July 2021 and July 2022 respectively. Additionally, Dr. Richard Kasuya and Dr. Jill Omori held five virtual lectures with the fellows including topics on curricular design, small group teaching and learning, evaluation, motivating student learning and leadership in medical education.

For the second year in a row, OME collaborated with Yokohama City University School of Medicine (YCU) on the Problem-Based Learning (PBL) Hawaii Style activity during spring break 2022, which was held virtually on two half-days. Four YCU students and six JABSOM MS1 and MS2 students participated in this well-received activity.

There were four Dr. Yoshihisa Asano Humanism in Medicine Speaker Series talks during AY 2021-2022:
With help from Dynamic Community Solutions, a panel of participants spoke to the MS1s during MD1 about their experiences with homelessness in September 2021. Hawaii’s National Alliance on Mental Illness spoke to the MS2s during MD6 on mental health awareness in October 2021.
With help from the Hawaii Health & Harm Reduction Center, a panel of participants spoke to the MS1s during MD3 about their experiences/caring for patients with HIV/AIDS in February 2022.
In February 2022, a panel of speakers spoke to the MS2s during MD7 about their experiences/working with sexual and gender minority patients in Hawai‘i.
Hawai`i/Pacific Basin Area Health Education Center (AHEC)

AHEC’s mission is to improve the health of the underserved through education. There are three main activity areas: (1) Recruiting students to health professions; (2) Educating interprofessional health professions students in the rural and underserved communities of Hawai`i and the Pacific; (3) Recruiting health care professionals to rural and undeserved areas and providing continuing education. We also conduct the physician workforce assessment for the state of Hawaii, as well as assist with workforce assessments for other medical professions and other parts of the Pacific Basin.

Significant Achievements/Highlights of the Year: Summer 2022, saw the return of the Pacific Experience, with students traveling to the Republic of Palau. The Area Health Education Center sent three students to Palau, two nurse practitioner students and one public health student to perform interprofessional clinical care and community research. Students were tasked with examining the capacity for telehealth and what is needed to increase the use of telehealth. Their experience resulted in an assessment of telehealth resources and an ongoing project to increase access to telehealth services throughout Palau including ongoing assessment and grant writing. In addition, the students worked with a school health screening team and learned how to work with patients under limited resource conditions.

Uyen Freitas, RN with the school staff in Palau

SimTiki Simulation Center

SimTiki is the accredited simulation-based healthcare education center at JABSOM. SimTiki is an Educational Support activity conducted under the Office of the Associate Dean for Academic Affairs, Office of the Dean.

MISSION
Providing Local and Global Healthcare Leadership for Turning Technology into Teaching.

VISION
SimTiki is the technology enabled learning simulation center of the John A Burns School of Medicine. SimTiki supports excellence in simulation-based education for healthcare students and professionals through teaching and operation of an academic simulation center. We pursue alliances locally, nationally, and in the Asia Pacific region. SimTiki promotes improvement in Teaching, Educational Research, and Training for Patient Care Best Practices.

Simtiki Simulation Center supports international participants in three program categories:

I. SimTiki Courses: Short-Term International group programs/Courses [2 to 14-day duration]
II. SimTiki Academy: intermediate term individual participant programs [1-12 weeks]
III. J1 visa programs
   a. SimTiki in-residence Fellowship [1-2 year]
   b. SimTiki in-residence International Scholar Program [1 Year]

International programs include a variety of short courses for educators and healthcare providers, and an in-residence research scholar fellowship of 1-2 year duration under the J1-Visa program. Short term in-residence programs of one week to several months’ duration are focused on faculty development in simulation based education methods, and clinical skills training for international learners. Outreach educational programs have been conducted throughout the Asia-Pacific region, including Philippines, Japan, China, Thailand, Korea, and Malaysia.

**Significant Achievements/Highlights of the 2022 year**

Simtiki faculty Dr. Benjamin W Berg and Dr. Jannet Lee-Jayaram completed a 3-week series of invited synchronous sessions of 9 hours total training for Interprofessional Debriefing and Rater Training for Simulation educators at Chulalongkorn University, Faculty of Medicine, Bangkok Thailand.

International fellows from Korea (8) and Japan (4) and Thailand (1) were enrolled in the J1 visa fellowship program during 2022. The program expanded from the previous year enrolling the greatest # of participants in anyone year since inception in 2007.

International fellows published 4 Peer reviewed manuscripts during CY 2022.

- Lee-Jayaram J, Park HS, Young JK, Seo JS, Oh, SH, Rhee, J, Berg BW. Development of the Korean Objective Structured Assessment of Debriefing


International fellows Dr. Yuka Eto and Machiko Yagi RN PhD participated in exchange visits to the WISER Simulation Center at the University of Pittsburgh, and Case Western Reserve University Hospital Simulation Center in September 2022

SimTiki international fellows conducted academic activities and IRB approved educational research including the following projects:

Yuka Eto MD
- Authored a textbook chapter on airway management
- International Invited remote presentations x 2
- IRB approved Protocol x 1
- Collecting remote faculty development course survey data
- Created English language model debriefing training video with Japanese subtitles

Eri Sato MD
- International Invited Remote Presentations x 2
- IMSH / HPEC conference presentations
- Translation and Harmonization methodology manuscript preparation

Kentaro Ono MD
- Developed a laparoscopic skills simulation-based evaluation system – undergoing beta testing
- Completed a survey of career development seminar impact for physicians raising children

Machiko Yagi RN PhD
- IRB approved protocols x 2
- Collecting data regarding on-line metrics for FunSimJ online course
- Submitted grant proposal for international collaborative protocol (Hawaii/Malaysia/Japan)
- Completed collaborative international protocol data collection: A comparative pragmatic study on understanding empathy through question-answer sequences in medical discourses in Japan and America (Jichi Medical University; Kansai Gaidai University)
- Presented research results (Chatbot system for job aid in medical field) at Association For Medical Education in Europe
- HPEC conference Presentation: Development and Evaluation of an Online Simulation Program for Patient Safety
  o Yujin Lee MD
    - Completed IRB proposal
    - PI on a major new research project; Identifying Semantic Elements and Noise in Debriefing (iSEND). Data collection underway
  o Sekyung Lee MD
    - Research project at University of Hawaii Cancer Center
  o Juok Park MD
    - Manuscript preparation and IMSH presentation – Scoping review: Remote facilitation for Simulation-Based Medical Education
    - HPEC Conference presentation
    - Medical Student mentoring
  o Heeyeon Cho MD
    - Data analysis and AMEE presentation: Scoping review – Simulation Based Methods for Teaching Medical Ethics

PROJECT HIGHLIGHT

- Machiko Yagi RN, PHD is a Simtiki fellow from Tokyo Japan who developed a comprehensive Japanese Language learning management platform system for the SimTiki collaborative FunSim-J Online Japanese Language faculty development curriculum for simulation educators. The University of Ryukyus faculty of Medicine co-hosts the 5 day blended learning program. The course has enrolled over 60 participants since inception and is now a fully integrated on-line international offering of the SimTiki center, having conducted 4 courses in 2022, with facilitators in Japan and Hawaii.
Department of Native Hawaiian Health (DNHH)

In NHH 545 (Senior Elective in Native Hawaiian Health) two students did their elective on Oahu. In addition to clinical work, students are able to access online recordings with much richness in Native Hawaiian history, culture and traditional medicines, not available prior to the pandemic. A student worked with faculty to organize a culturally powerful huaka‘i to Kahoolawe, partnering with Protect Kahoolawe Ohana, for 4th year medical students, Native Hawaiian physicians from 'Ahahui o nā Kauka (Native Hawaiian Physician Association), with faculty and staff of Native Hawaiian Center of Excellence.
1. Integrated and Collaborative Care Models

Dr. Caitlin Engelhard and their team continued their collaborated with providers at the Kosrae Community Health Center in Kosrae, Federated States of Micronesia on a behavioral health integration project. The initial phase focused on establishing connection and education of providers. In November 2019 she conducted training in the WHO mhGAP program in Kosrae, from 2020-present has provided weekly case consultation by video-teleconference, and in 2021-2022 provided teaching on motivational interviewing for substance abuse. Two abstracts describing different aspects of this work were accepted to the annual conference of the World Psychiatric Association for 2021. Two manuscripts describing aspects of this work were published in 2021. This work was also included in a third manuscript in 2022 describing international integrated care models. Emphasis for this multi-year project has shifted to sustainability. A recently initiated contract involves collaboration between UH DOP and the state of Yap, FSM.


International conversations around the lack of child and adolescent mental health services and the promising role that primary care could play, led to sharing of integrated care perspectives from colleagues around the world. Our findings include various models of integrated care namely: the stepped care model in Australia; shared care in the United Kingdom (UK) and Spain; school-based collaborative care in Qatar, Singapore and the state of Texas in the US; collaborative care in Canada, Brazil, US, and Uruguay; coordinated care in the US; and, developing collaborative care models in low-resource settings, like Kenya and Micronesia. The paper provides insights into training initiatives necessary to build workforce capacity using integrated care models. Supportive healthcare policy, robust training initiatives, ongoing quality improvement and measurement of outcomes across programs would provide data-driven support for the expansion of integrated care and ensure its sustainability.
2. Norway International Exchange

Drs. Joy Andrade, Caitlin Engelhard, and Anthony Guerrero were invited faculty members for presentations to healthcare students, at the Centre for Child and Adolescent Mental Health and Child Protection, Faculty of Medicine, Norwegian University of Science and Technology (NTNU), Trondheim, Norway. Overall topic was Mental Health Disparities and Hawai’i /Pacific Island’s Contribution to approaches and models of care to address disparities. Specific presentations were: “Native Hawaiian and Pacific Islander Youth Suicide” (Dr. Andrade), “Expanding Mental Health Treatment in Micronesia: The Kosrae Behavioral Health Integration Project” (Dr. Engelhard), and “Addressing Mental Health Disparities: Perspectives from Hawai’i and the Pacific” (Dr. Guerrero). This has been an ongoing exchange between UH JABSOM Department of Psychiatry and the Centre for Child and Adolescent Mental Health and Protection in Norway. Dr. Norbert Skokauskas has been a visiting faculty member in previous years. Drs. Guerrero and Skokauskas are both members of the World Psychiatric Association’s Child and Adolescent Section. This collaboration has also led to other publications relating to psychiatric practice.


3. Exposure to War

Dr. Guerrero and colleagues looked at exposure to war, displacement of self or family, and mental health among Ukraine-based helpline staff. Not surprisingly, staff were exposed to the war in Ukraine and demonstrated signs of compromised mental health and burnout. This study demonstrates a need for a stronger humanitarian health care support structure in Ukraine. Helplines offer critical mental health support in affected areas. Services-based outside Ukraine may help relieve the stress.

4. Supporting Micronesians

Mr. Davis Rehuher was awarded a grant for “Preparing for College: Practices, Strategies, and Tips from Micronesian College Students,” from the Inclusion, Diversity, Equity, Access and Success (IDEAS), Office of Student Equity, Excellence and Diversity (SEED), University of Hawaii'i at Manoa. He interviewed multiple students and is analyzing the data to identify activities, practices, and strategies for preparing for and staying in college. He will also develop a Getting into College 101 type guide for Micronesian families.

Mr. Rehuher also convened a team of JABSOM psychiatry and family medicine faculty to provide a historical and contemporary examination of sociocultural determinants of health of Micronesian migrants aimed at educating health care providers.


5. Suicide Prevention

Through their membership and conference attendance in the International Association of Suicide Prevention, Dr. Deborah Goebert, Mr. Davis Rehuher, Dr. Jeanelle Sugimoto-Matsuda, and Dr. Tai-An Miao have established connection with folks from across the Asia-Pacific Region. We continue our collaboration with the Dr. Jemaima Tiatia-Seath and doctoral candidate, Eliza Puna (Cook Islands) at the University of Auckland. At the 2021 meeting, Dr. Goebert presented Inspiring Hope Though Sources of Strength Among a Pacific Islander Community on a panel focused on Indigenous/First Nations Interventions. We are looking at collaborating with Australian colleagues on indigenous gatekeeper training. Drs. Sugimoto-Matsuda and Goebert presented on a strategic planning panel Story of the Design, Implementation, and Evaluation of Hawaii’s Suicide Prevention Strategic Plan on a strategic planning panel and The Prevent Suicide Hawaii Taskforce: A model of cross-disciplinary and community-driven collaboration to support suicide prevention on a panel about community, leading to collaboration on developing plans throughout Micronesia and Samoa. Additionally, Mr. Rehuher and colleagues presented on suicidality in the Micronesian region and among Micronesian migrants.

In March, 2021, we welcomed to Patteera Vongtangton, M.D., a visiting scholar from Ramathibodi Hospital, Mahidol University, in Bangkok, Thailand, to our department. She is the recipient of the prestigious Prince Mahidol Award Youth Program. She has done some ground-breaking work to look at tracking patterns of social media use to detect suicidality among individuals using A.I. She is currently working on using Instagram to predict suicidality among young adults in Hawaii. She is also learning more about our Hawaii’s Caring Systems Initiative for Youth Suicide Prevention as a member of our suicide prevention team.
Department of Geriatric Medicine

1. Department of Geriatric Medicine faculty were co-authors on 11 abstracts presented at international conferences, including the International Parkinson and Movement Disorder Society Congress held virtually in September 2021, the International Symposium on Atherosclerosis in Kyoto, Japan in October 2021, the International Conference of Alzheimer’s and Parkinson’s Diseases and Related Neurological Disorders in Barcelona, Spain in March 2022, the Alzheimer’s Association International Conference in San Diego, California in July-August 2022, the International Congress of Parkinson’s Disease and Movement Disorders in Madrid, Spain in September 2022, and the International Society of Hypertension Meeting in Kyoto, Japan in October 2022.

2. Department of Geriatric Medicine faculty published manuscripts based on work in the Pacific Islands:


3. Faculty in the Department of Geriatric Medicine participated in the Women’s Health Initiative Race and Ethnicity Task Force, which culminated in a publication in a peer-reviewed journal.


4. Our Geriatrics Workforce Enhancement Program (GWEP, HRSA grant) has been extended for additional years of funding. Through this grant, we provided training in geriatrics in the Pacific Islands.

   An overview of the GWEP was published in a peer-reviewed journal.


   We have created a Dysphagia training video for patients and caregivers. In addition to English, the video has been translated into Ilocano, Samoan, and Chuukese, and all are available on YouTube. Our partners at Mountain Pacific Quality Health (MPQH) are
helping to disseminate publicity about these videos to the Pacific Islands area. Video links: http://geriatrics.jabsom.hawaii.edu/gwep/

We partnered with the Department of Health’s Executive Office on Aging to create translations of their “Worried About My Memory” brochure into 7 different languages: Ilocano, Tagalog, Samoan, Chuukese, Japanese, Korean, Simplified and Traditional Chinese and Marshallese. These translations are available free online.

We have a strong collaboration with MPQH on their Diabetes Curriculum by enhancing the geriatrics and dementia content. MPQH has conducted trainings using this curriculum in Hawaii, Guam, and American Samoa.

We have built a partnership and collaboration with the Palau Community College, and they have agreed to offer 2 courses per year of the Family Caregiver Training Certificate in 2020 and 2021. Due to the pandemic and social restrictions, the 2020 courses were postponed because of COVID-19 and were moved to 2021. They have produced a video in Palauan about hands-on caregiving skills with the future plan to edit the large video into shorter clips targeting specific caregiving skills.

We have built a partnership and collaboration with the Yap AHEC, and they have agreed to offer 2 courses per year of the Family Caregiver Training Certificate in 2022 and 2023. To this end, a train-the-trainer refresher course was conducted via Zoom in March 2022.

GWEP faculty have continued to work with the AHEC on educational activities. The Geriatrics ECHO monthly tele-education series has been very successful, with participants from Guam and Palau.

GWEP faculty and staff have been actively working with the Guam GWEP, offering advice and assistance. Guam faculty and staff are also invited to all our ECHO series.

Dementia Friends training to the Guam GWEP is in progress via Zoom. Dementia Friends champion training has been postponed because of COVID.

Department of Anatomy, Biochemistry and Physiology (ABP)

Webinars in Forensic Anthropology

Dr. Robert Mann, Adjunct Professor of ABP, organized three webinars in Forensic Anthropology using the Mann-Labrash Osteological Collection in the Bioscience Building, JABSOM. Researchers in Bosnia and Herzegovina, Cyprus, Greece, Italy, Kosovo, Sweden, Thailand, and the United Kingdom participated in the webinars. The total number of participants for Dr. Mann’s online webinars for 2020-22 was 253 enrollments.

September 27-29, 2021: “Advanced Forensic Anthropology and Clinical Orthopaedics.” Live webinar from JABSOM. Co-taught with orthopaedic surgeon Dr. Paul Moroz. International participants from Cyprus, Bosnia and Herzegovina, Germany, Greece, Kosovo, Scotland, Sweden, Thailand, and United Kingdom, 33 enrollments.

March 21-23, 2022: “Skeletal Trauma, Healing & the Postmortem Interval”, 54 enrollments. Co-taught with orthopaedic surgeon Dr. Paul Moroz.

Department of Obstetrics, Gynecology, and Women’s Health

Dr. Steven Minaglia gave a lecture entitled, “Assessment of Urinary Tract Injury During Gynecologic Procedures” at the XVIII International Medical Scientific Conference for Students and Young Doctors (MDSC) in Pleven, Bulgaria via videoconference on September 15, 2021.

Dr. Tamarin McCartin attended the International Society for Vulvovaginal Disease (ISSVD) conference in Dublin, Ireland in July 2022.

Department of Tropical Medicine, Medical Microbiology and Pharmacology

The Northern Pacific Global Health (NPGH) Research Fellows Training Consortium is sponsored by the National Institutes of Health (NIH) Fogarty International Center. This five-year program, from 2012 to 2017 was renewed for additional five years (2017-2022) and further renewed for an additional five years - (2022-2026). This program, led by Dr. Vivek R. Nerurkar has provided fellowship and scholarship funding for international training in Thailand, Cameroon, Liberia and India to JABSOM postdoctoral trainees, JABSOM scholar trainees, international postdoctoral trainees, and international scholar trainees since 2012.
The NPGH research projects have included clinical studies on dengue virus, malaria, tuberculosis, HIV/AIDS, and qualitative research on transgender populations in Thailand. One Tropical Medicine graduate student was awarded the NPGH fellowship in 2020. He conducted Lassa virus research in Liberia and recently returned to Hawaii to complete his doctoral thesis. A previous Tropical Medicine graduate student was also awarded a NPGH scholarship to conduct research in Cameroon and in the spring of 2023 will return to Hawaii to gain advanced research experience.

Puipui a le Ola: Non-Native Hawaiian Pacific Islanders (PI), have one of the highest COVID-19-associated morbidity and mortality rates in the United States. PI are defined as the indigenous people of the three territories of the U.S. Affiliated Pacific Islands (Guam, Commonwealth of the Northern Mariana Islands, and American Samoa) and persons of the sovereign nations that have a Compact of Free Association treaty with the U.S. (the Federated States of Micronesia, Republic of the Marshall Islands, and Republic of Palau). PI also suffer from higher rates of medical co-morbidities (obesity, hypertension, diabetes, cardiovascular disease) known to increase the risk of poor COVID-19 outcomes. Moreover, PI suffer from poor access to health care, lack medical insurance, live in multi-generational, overcrowded housing, and have low-paying service jobs that put them in frequent contact with the infected public. From the very onset of COVID-19 in Hawaii, PI have been disproportionately affected, leading all other ethnic groups. As of September 19, 2022, PI comprise only 4% of the State’s population, but they account for 7% of COVID-19 cases and 15% of COVID-19 deaths. PI also bear a much larger burden of COVID-19-related hospitalizations compared to other racial and ethnic groups in Hawaii. As of May 3, 2021, PI alarmingly made up 29% of hospitalizations. Of great concern is that many of the COVID-19 cases are among individuals younger than 50 years of age. On Guam, indigenous Chamorro and immigrant Micronesians represent the majority of COVID-19 cases. These underserved PI communities are in urgent need of culturally appropriate COVID-19 response measures.  
https://manoa.hawaii.edu/puipuia/about
STEP-UP (Dr. George Hui): Short-Term Research Experience Program to Unlock Potential (STEP-UP) high school students (sponsored by National Institute of Diabetes and Digestive and Kidney Diseases: This NIH funded grant in its 16th year was successfully renewed for the third consecutive 5-year cycle (2022-2028). The goal of the program is to raise awareness of biomedical research and career pathways in underrepresented minority high school students in the Pacific region, specifically US affiliated territories of American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands the Federated States of Micronesia, the Republic of the Marshall Islands, and Palau. Over 100 mentors from Hawaii and the Pacific who have tirelessly mentored our high school students to create a pipeline of future researchers.

Dr. George Hui (program PI) and Aneesa Golshan (Program Coordinator) and Postdoctoral researcher Dr. Alanna Tseng travelled to Santa Rita, Guam in November 2021 to set up a life science research lab for use by science classes at Southern High School on Guam. Ms. Golshan and Dr. Tseng also hosted a week-long teacher training in which 10th, 11th, and 12th grade science teachers learned fundamental life science laboratory skills such as DNA extraction, bacterial culture and transformation, polymerase chain reaction (PCR) and DNA electrophoresis in order to incorporate lab activities into science curriculum. Dr. Hui and Dr. Tseng also traveled to the Commonwealth of the Northern Mariana Islands (CNMI) in February 2022 to set up another high school research lab at Kagman High school on Saipan and trained CNMI science teachers on laboratory skills once again.
In May of 2022, Dr. Hui and Ms. Golshan travelled to Guam and Saipan with NIH/NIDDK leadership Dr. Griffin Rodgers (NIDDK Director), Dr. Lawrence Agadoa (Office of Minority Health Research Coordination Director), and Dr. Robert Rivers (Program Officer) for capacity building and collaboration with educational institutions (Guam Department of Education, University of Guam, CNMI Department of Education, Northern Marianas College) to discuss the upcoming STEP-UP grant cycle as well as with the Governor of Guam, Lourdes Leon Guerrero to discuss the importance and commitment by Guam DOE to expand the scientific laboratory capacity at all public schools on Guam.

Advancing Infectious Disease Detection and Response in Liberia: This project is funded as a CDC cooperative agreement and includes the University of Liberia and the National Public Health Institute of Liberia (NPHIL) as international partners. The 2014-2016 Ebola Virus Disease (EVD) epidemic had a devastating impact on West Africa resulting in 10,678 suspected, probable and confirmed cases and 4,810 deaths in Liberia. As not all individuals infected with Ebola virus (EBOV) sought medical attention or received laboratory confirmation of EVD, the full magnitude of the outbreak is still unknown. While the West African outbreak permitted advancement of scientific inquiry into the natural history, sociobehavioral context, and effectiveness of countermeasures for EVD, significant gaps in knowledge remain about post-Ebola sequelae, immune responses to Ebola virus infection and disease, and durability of immunity over time. Another subject of concern is the persistence of EBOV in immunologically protected sites of EVD survivors (and potentially undiagnosed Ebola virus infections). Persistent infection has resulted in sexual transmission of the virus and subsequent clusters of disease following the end of widespread transmission. This viral persistence combined with minimal available seroepidemiological surveillance data for Ebola and other viruses with epidemic potential in West Africa poses a continued risk for resurgence of Ebola virus infection or disease cases and the possibility of new clusters or large-scale outbreaks originating from previously reported or unrecognized infections.
In line with the mission of the CDC, this project is aimed at establishing a serological baseline for a future surveillance platform, allowing the study of underlying etiologies, characteristics, and response to emerging infections. This will advance our combined knowledge on priority epidemic-prone viral diseases in Liberia, allowing development of strategies to prevent future outbreaks through a combination of conventional, targeted serosurveillance and disease and intervention modeling. An expansion of the scope in the spirit of epidemic and pandemic preparedness has already been shown by adding coronavirus-serology to the assay menu in 2021.

This grant was initiated in late 2019 and after an initial meeting of Drs. Lehrer and Berestecky with the Liberia partners in early 2020 suffered some setbacks due to the COVID-19 pandemic and associated travel and supply chain disruptions. However, regular coordinating calls (at least two every month) via Zoom have allowed the project teams in Liberia, Atlanta and Hawaii to stay connected. Against great odds during the height of the COVID-19 pandemic, physical activities resumed in Liberia during the summer of 2021 when Dr. Berestecky and CMB graduate student Brien Haun traveled there to work with our Liberian partners at the University of Liberia and Trop Med graduate student Varney Kamara to set up the multiplex (Magpix) assay system for the immunosurveillance of a variety of viral agents including the filoviruses, a number of hemorrhagic fever viruses, coronavirus and others. An important activity of the summer visit was mentoring and research training for our Liberian partners to develop a sustainable workforce trained and ready to do research on emerging epidemic viruses. Dr. Berestecky has made repeated training and coordination trips to the University of Liberia through 2021 and 2022 to expand the technical capabilities of the laboratory recently adding the possibility of tissue culture and cell mediated immunity assay systems. It is hoped that all of this will better prepare Liberia and its life science and healthcare professionals to handle Ebola or similar epidemics in the future.

TRMD/UH faculty that are part of the CDC funded project: Axel Lehrer, Vivek Nerurkar, Wei-Kung Wang, John Berestecky (KCC), Alan Katz (UH Manoa, School of Public Health)
Global One Health Activities (Sandra Chang): The department has been involved in several One Health initiatives over the years. The One Health approach recognizes the interconnectedness of human health, animal health, and environmental/ecosystem health and the importance of addressing complex health problems using this interdisciplinary approach. The issues addressed by One Health overlaps to a large extent with global health. For example, the current COVID-19 pandemic is a global health problem whose solutions require a One Health approach. One of the One Health activities in 2022 included a meeting with representatives of the Fukuoka, Japan Prefectural Assembly in August 2022. During this meeting there was an exchange of ideas with JABSOM faculty and students on One Health educational initiatives for a wide range of learners. One outcome of this meeting was an invitation of JABSOM representatives to participate in the 21st Federation of Asian Veterinary Associations (FAVA) Congress whose theme will be “The One Health Approach from Asia” in November, 2022 in Fukuoka, Japan.

Advancing and Sustaining Pacific Interventions to Reach Equity (ASPIRE; Angela Sy): ASPIRE is funded under the CDC Racial and Ethnic Approaches to Community Health. The overall goals of this project are to create systems and environment changes to improve health, prevent chronic diseases, and reduce health disparities among peoples in specific areas of the US Affiliated Pacific Islands (USAPI): Guam, Palau, Republic of Marshall Islands, and Pohnpei and Kosrae States in the Federated States of Micronesia. Program evaluation is being conducted across the USAPI sites on the implementation of practice- and evidence-based strategies to address tobacco use policies, improving the physical activity environment, and the linkage of community and clinical efforts to increase access to health care and preventative care programs.

Hantavirus Discovery (Dr. Richard Yanagihara): Collaborations with museum curators and field mammologists from Poland, Russia, Japan, South Korea, Vietnam, Myanmar, Philippines, Ecuador and the United States.

International Neuro-HIV Cure Consortium (INHCC; Dr. Lishomwa Ndlovu): Collaborations with the INHCC seek to provide cutting-edge neurological and immunological expertise in the exploration of HIV cure strategies in the blood and
sanctuary sites like the central nervous system.

**Impact of hepatitis in Egypt** (Dr. F. DeWolfe Miller): Ongoing studies in Egypt are defining the prevalence and social impact of Hepatitis C. Recent findings revealed a high prevalence of Hepatitis C in rheumatoid arthritis (RA) patients and the need to screen RA patients for Hepatitis C. These studies are in collaboration with Ain Shams University and Ahmed Maher Teaching Hospital. Recent publications: Soliman et al. BMC Public Health (2019) 19:1326. BMJ Global Health2019;0:e001922.

**Clinical rotation in the Philippines** (Dr. Kenton Kramer): With the retirement of Dr. Kenton Kramer, this project has been suspended.

**The Minority Health Research Training (MHRT) program** (Drs. Vivek R. Nerurkar, J Keawe’aimolu Kaholokula, and Angela Sy): JABSOM was awarded the International Biomedical Research Training for Minority Students grant (National Institute of Minority Healthy and Health Disparities, NIH (2T37MD008636-08). The objective of the MHRT program is to encourage students from under represented (including minority) backgrounds to pursue careers in science; and expose students to biomedical, clinical, and behavioral health research and global health issues that relate to health disparities. The program also aims to enable collaborations between colleges/universities and international research programs. Since the initiation of this project, approximately 100 students have participated in this program. Approximately 50% of MHRT graduates have gone on to pursue higher degrees in science and medicine. Undergraduate and graduate students with ethnic backgrounds that fit the US government’s definition as being under-represented in biomedical research including, Native Hawaiians and other Pacific Islanders, Blacks and African Americans, Hispanic Americans or Latinos, American Indians and Alaska Natives; and rural; and low socio-economic groups are encouraged to apply to the program. Following rigorous and competitive selection process participants receive research training and pursue local, national, or international research projects in tropical medicine, infectious diseases, public and community health, and related health sciences. In 2022, due to COVID travel restrictions, all 10 Hawaii-based and 2 mainland-based (George Washington University; University of Miami) were unable to take advantage of the overseas travel initiatives. Nevertheless, students were able to participate in a wide variety of projects, mentored by UH faculty, East-West center faculty, and faculty at respective mainland universities. 2022 projects included: studying sleep disorders, stress, and anxiety of pregnant women in Zambia; early colorectal cancer education recommendations for Filipinos age 18-49; increasing Native Hawaiian and Other Pacific Islanders in cardiometabolic related clinical trials; air quality impact of wildfires on West Oahu; inflammatory biomarkers in the plasma of transgender women on gender affirming hormone therapy; comorbidities associated with hospitalization and morbidity among Pacific Islanders with COVID-19; nasopharyngeal cytokine gene expression among Native Hawaiians infected with Delta variant of SARS-CoV-2; cytopathic effects of SARS-CoV-2 proteins in human microvascular endothelial lung cells; protein scaffolding in mouse immune response to HIV GP120; repurposing screening of clinical approved drugs to attenuate West Nile Virus replication.
Box Jellyfish therapeutic product (Dr. Angel Yanagihara): Lethal Cubozoan Envenomation (Box Jellyfish Sting) pathophysiology and translational research (Dr. Angel Yanagihara, DOD and NIH PI, Fulbright Specialist) has resulted in fully commercialized federal regulatory compliant therapeutic products. Recent and ongoing international collaborations include fieldwork in the Philippines, Indonesia, Thailand, Australia, Ireland, Micronesia, Puerto Rico, Florida. The objectives of these efforts are to provide lifesaving therapeutics, as well as to improve public health knowledge of sting management, sting prevention and field ecology-based sting-danger predication capacities. The ASEAN outreach efforts continues despite COVID travel prohibitions via Zoom presentations and stand alone, public health PowerPoint presentations with embedded movies and prepared lectures for on-site leaders to present in Thailand, Indonesia and the Philippines. Recently, appointed chair of a Special Program entitled "Cubozoan Envenomations in the Philippines: Field Ecology, Venom Biochemistry and Sting Management" with undergraduate and graduate students at Polytechnic University of the Philippines.

Serological tests for arboviruses in Brazil (Dr. Wei-Kung Wang): Funded by NIH, National Institutes of Allergy and Infectious Diseases (R01AI149502-01, 6/5/2020–5/31/2024). Collaboration with researchers at the Federal University of Bahia at Salvador, Brazil to develop sensitive and specific serodiagnostic tests in multiplex formats to discriminate pathogenic arbovirus infections in Brazil.

2021-2022 List of Publication from Tropical Medicine Global Health Researchers

Ching LL, Tseng AC, Nakano E, Salomon RC, Wang WK, Shikuma C, Nerurkar VR. COVID-19 vaccination and booster induced authentic-virus neutralizing antibody


Maison DP, Cleveland SB, and Nerurkar VR. Research methodology to define the introduction of the SARS-CoV-2 B.1.429 variant in Hawaii. Res Square 2021 July, Preprint (Version 3); doi: https://doi.org/10.21203/rs.3.rs-378702/v3], Link: https://www.researchsquare.com/article/rs-378702/v3.


**Department of Pediatrics**

The UH Pediatric Residency Program, until the COVID pandemic struck, had been offering three Global Health rotations to pediatric residents in their third year of training under the direction of Drs. Maya Maxym and Anna-Lena Lueker. Unfortunately, with travel restrictions due to the ongoing pandemic, activities have been significantly curtailed for the past nearly three years, and the majority of Global Health education has been didactic rather than clinical during this time period. As we seek to restart Global Health rotations in 2023, the same rotation goals – to provide residents with graded autonomy in the setting of unique learning opportunities, including exposure to pathology unlike that seen in the Hawaiian Islands or North America and their management in resource-limited environments – remain in place.

For the first time since 2019, we will be offering the 2-4 week rotation at LBJ Tropical Medical Center in Pago Pago, American Samoa again, and are currently working with the residents and the hospital to arrange the rotation.
The 2-week elective in musculoskeletal medicine in cooperation with Shriner's Hospital for Children has also been unavailable during the pandemic, but we hope that in the future it will allow pediatric residents to accompany orthopedic attendings on their outreach trips to various sites across the Pacific, including American Samoa and Samoa, Guam, the Marshall Islands, and Fiji, among other sites. We are exploring possibilities for rotations in Saipan and/or Palau for Spring 2024 as the pandemic restrictions are further lifted.

We continue to incorporate Global Health material into the residents’ curriculum, including (when away rotations are possible) pre-departure preparation seminars and online modules, on-site educational assignments, and post-return debriefs for rotating residents. We also sponsor biannual inter-residency Academic Half Days devoted to Global Health topics for residents from programs including pediatrics, psychiatry, OB-GYN, and family medicine.

Drs. Maxym and Lueker are also co-directors of Hawaii’s only Pediatric ECHO, a form of tele-education geared towards empowering clinicians to provide better specialty care to patients while focusing on community pediatricians without immediate access to subspecialist consultation, including those in rural and underserved areas, by providing knowledge and support to manage complex conditions. We have had participants from several sites in the Pacific and are continuing our outreach to our Pacific colleagues to engage them in this free CME opportunity.

**Department of Family Medicine and Community Health**

1. The Department of Family Medicine and Community Health (DFMCH) has continued increasing local capacity for cancer prevention, screening, treatment, palliative care, and end-of-life care in the U.S. Affiliated Pacific Islands (USAPI) with funding from the Bristol-Myers Squibb Foundation (2018-2021, extended to 2022). Content experts facilitate monthly, didactic case-based sessions educating USAPI healthcare providers and community health workers about the cancer control continuum. These sessions have been delivered via telehealth platforms and during island site visits.

2. Under the direction of the Principal Investigators Drs. Neal Palafox and Lee Buenconsejo-Lum, the DFMCH’s Pacific Cancer Program was awarded the Centers for Disease Control and Prevention’s (CDC) DP 22-2022: Cancer Prevention and Control Programs for State, Territorial, and Tribal Organizations for five years (2022-2027) to continue supporting the Pacific Regional Central Cancer Registry (PRCCR). Since 2007, PRCCR has served as the bona fide agent for the USAPI jurisdictions in cancer registry matters. Dr. Palafox has worked with partners from the Cancer Council of the Pacific Islands (CCPI), WHO, Fiji, New Zealand, and Australia to develop a functional regional partnership and regional planning for effective cancer prevention and control.
3. With 3-years (2020-2023) of CDC’s Racial and Ethnic Approaches to Community Health (REACH) funding, the staff continue to use culturally tailored interventions to strengthen smoke-free policies at worksites and housing, increase access to safe active-friendly routes, and improve community-clinical linkages in Guam, Federated States of Micronesia (Kosrae and Pohnpei), Republic of Palau, and Republic of the Marshall Islands (RMI). The goal is to reduce health disparities among the Pacific Islander and Asian populations who have the highest burden of chronic diseases, including heart disease, diabetes, and cancer. The program staff has provided numerous training and technical assistance and on-site guidance for each intervention.

4. The DFMCH faculty and staff are working with Guam and Yap State, Federated States of Micronesia (FSM) health departments, hospitals and clinics, laboratories, and community-based organizations, Pacific Island Health Officers Association, the University of Alabama at Birmingham, CDC, Cancer Council New South Wales, and other partners to implement a community-based outreach to screen underserved women for cervical cancer using the primary HPV testing. During this past year, educational and informational tools were developed for women and providers on primary HPV testing, and medical training and technical assistance were provided to improve their cervical cancer screening and management systems. Dr. Palafox, as the project implementation lead of this CDC funded Pacific Against Cervical Cancer (PACe) Project, has provided several didactic sessions for the FSM, RMI, and the CCPI regarding the new and evolving technologies of cervical cancer screening. Dr. Komal Soin has provided guidance and information regarding screening techniques and colposcopy.

5. Dr. Palafox, as a member of the Republic of the Marshall Islands National Nuclear Committee, has provided several didactic sessions for the people of the Marshall Islands and policy experts regarding the direct and indirect effects of the 12 years of U.S. nuclear testing in the Marshall Islands. The effects and developing programs to address and mitigate these effects have been discussed.

6. Dr. Palafox, as a member of the Marshall Island COVID-19 Response team and the Native Hawaiian and Pacific Islander Response team, provided several didactic sessions regarding COVID-19 prevention control to Guam and the FSM medical staff and non-communicable disease teams.

**Department of Medicine**

Twenty international medical students and physicians from Japan, Korea, and Indonesia, participated in an observational externship in Internal Medicine at the Kuakini Medical Center.