

INTRODUCTION

The MSCR curriculum is designed to prepare multidisciplinary translational research teams to accomplish specific goals in health disparities related research. This award would support the expansion of the MSCR by adding curricula leading to a PhD in Clinical Research (PhDCR).

The interdisciplinary curriculum will emphasize applied biomedical ethics, cultural competence, and team building through classroom teaching, seminars, laboratory training and community-based experiential learning. Diverse faculty from UH's JABSOM, Pacific Biomedical Research Center (PBRC), Cancer Research Center of Hawai'i (CRCH), School of Nursing and Dental Hygiene (SONDH), William S. Richardson School of Law (WSRSL), School of Social Work, College of Tropical Agriculture and Human Resources, School of Business, School of Engineering, School of Education, School of Hawaiian, Asian and Pacific Studies, School of Arts and Sciences and others in the community will be invited to participate in a multidisciplinary approach to identifying and reducing barriers to health disparities research, particularly in the areas of genetics, genomics and end-of-life decision making. In addition, we will build upon collaborative relationships with the University of California at San Francisco (UCSF), Tuskegee University and other institutions to enhance the program's scientific and academic excellence. We will encourage medical students, residents, post-doctoral fellows, PhD candidates, and junior and minority faculty to enroll in the program, ensuring a diverse range of students from behavioral, basic and clinical science disciplines.

OBJECTIVE

We seek to expand the existing MSCR program by adding curricula that would lead to a PhD in Clinical Research designed to prepare multidisciplinary translational research teams to accomplish specific goals in community-based health disparities related research. The PhDCR would offer intensive interdisciplinary learning experiences in applied biomedical ethics, cultural competence and team building, with a special emphasis on issues that arise in the areas of genetics, genomics and end-of-life decision making. Selected residents and fellows, post-doctoral fellows, PhD candidates, and junior faculty, particularly those of minority descent, will be encouraged to apply. This will ultimately increase the critical mass of investigators whose knowledge and experience enables them to collaborate with communities in culturally competent research that is scientifically rigorous and ethically sound. Ideally, the proposed PhDCR would be transferable to other settings, particularly those addressing the needs of minority and underserved populations.

A. SPECIFIC AIMS

Specific Aim 1: (Curriculum Development): To develop and implement a curriculum specifically for the training of multidisciplinary translational research teams. The curriculum will include courses in applied biomedical ethics, cultural competence and team building. Curriculum development activities will include:

- planning, implementation and evaluation of curricula to prepare multidisciplinary teams for the cooperative, ethical, and culturally competent conduct of health disparities research;
- preparation of a research seminar series focused on team building;
- integration of existing courses offered by other UH schools and departments as electives;
- design of interdisciplinary community-based clinical research projects;
- dissemination of the curriculum through web postings, presentations at meetings, and workshops.

Specific Aim 2: (Administrative Development): To solidify an administrative structure based in the Dean's office at JABSOM to perform the following:

- facilitate program activities, including recruitment, monitoring and evaluation of trainees, mentors and faculty;
- identify funded investigators with expertise in bioethics and cultural competence, as well as experience in interdisciplinary cooperation, to serve as additional instructors and mentors for the program;

- collaborate with the schools of Business, Arts & Science, Law, Hawaiian, Asian and Pacific Studies, Engineering, Social Work, and Nursing, e.g., in the development of the interdisciplinary curriculum;
- work with other disciplines to reduce administrative barriers to interdisciplinary study & collaboration;
- target and recruit program participants and formalize recruitment, selection and evaluation procedures;
- ensure compliance with NIH requirements, UH policy and procedures and other applicable regulations;
- identify extramural and other funding sources to ensure continuation of the PhDCR once the term of this award expires.

Specific Aim 3: (Investigator Development): To increase investigator competence and foster collaboration between trainees, mentors, and instructors of the PhDCR program, ensuring continued follow-up surveillance that will help guide new graduates as they embark on promising careers in clinical research. The PhDCR will involve the following activities that will contribute to investigator development:

- provide a complementary forum and specific activities to encourage collaboration between disciplines;
- develop sources of support for development of junior faculty through intramural and extramural funding;
- prepare graduates to form multidisciplinary teams in developing innovative protocols;
- prepare graduates to serve as mentors for new trainees in order to provide reciprocal benefit to new scholars entering the program and expand the pool of collaborators.

By accomplishing the above specific aims, we hope to broaden the base of skilled investigators committed to innovations in community-based multidisciplinary research. With their in-depth knowledge and research experience, PhDCR trainees will contribute to enhancing capacity to improve health outcomes in diverse populations. This coincides with UH's long-term goal of expanding into a research-intensive institution.

Purpose of the PhDCR

The purpose of the PhDCR is to enable trainees to attain specialized knowledge and experience in three areas fundamentally related to reducing health disparities in diverse populations. This will prepare them to actively serve on multidisciplinary translational research teams and develop strategies for conducting research across traditional disciplinary boundaries. This would also coincide with recent expansions in clinical research infrastructure and funded health disparities programs at UH and fill an important gap in JABSOM faculty. A formal expansion of the MSCR program would serve as a catalyst to increasing the critical mass of clinical researchers at UH, particularly those whose expertise prepares them for careers in community-based research. By expanding training and development opportunities for clinical researchers, many of whom are minority investigators, the PhDCR would perform a vital function in enhancing interdisciplinary research capacity at UH and embracing a new community-based participatory research model.

The PhDCR will offer an exciting alternative for 1) clinicians interested in health disparities research who have not followed the typical academic medical path (i.e., from medical school to residency to fellowship), and, 2) non-medical students in undergraduate or graduate programs (e.g., anthropology, chemistry, engineering, genetics, molecular biology, psychology, sociology) who want to draw upon their training in other disciplines and direct their careers toward health disparities community-based research. Hence, for MD's in primary care specialties such as Obstetrics, Pediatrics, Medicine, and Family Practice who choose not to specialize but are interested in community-based health disparities research, and for non-MD's whose expertise in other fields will complement that of medical clinicians, the PhD will provide tools and credentials for serving as multidisciplinary research team members who can work together to create innovative studies designed to reduce health disparities. Funding for development of MD faculty will come from new health disparities research opportunities (e.g., NCCR, NCMHD, NHLBI, CCHD, EXPORT, Minority Scientist Awards, K-23 awards, and other institutional support). Funding for non-MD's will come from either F-32 or T-32 awards as well as other institutional support. The UH Office of Grants Development and the CRC will work with PhDCR trainees to promote investigator development and obtain funding for multidisciplinary translational research awards.

B. DESIGN OF PHD IN CLINICAL RESEARCHExpansion of the MSCR

The PhDCR will build upon the MSCR. The PhDCR will include additional coursework in applied bioethics, cultural competence and team building, and will also require completion of a dissertation. Curriculum will be developed during an initial planning phase in cooperation with collaborators and course directors. Curriculum will be designed to explore scientific, ethical, legal, social and cultural issues inherent to the full and equal participation of ethnic minority populations in research, particularly in the areas of genetics, genomics and end-of-life decision making. This will enable trainees to develop a broader awareness of issues involved in reducing barriers to community-based participatory research, particularly in these distinct fields. The curriculum, which will include classroom, laboratory and community-based experiential training, will prepare multidisciplinary teams to work in partnership with communities to conduct translational health disparities research.

In addition to developing new curricula, we will solidify an administrative structure based in the Dean's office at JABSOM to facilitate program activities. This will ensure that recruitment of trainees, mentors and faculty as well as cross-disciplinary academic collaboration, takes place in an atmosphere conducive to building productive research teams. In particular, it will be important to identify and reduce administrative barriers to interdisciplinary study and collaboration. Finally, the administrative component will involve ensuring compliance with applicable external and internal requirements and procedures as well as identification of continued sources of funding for the PhDCR program after the NIH award period.

Collaboration with University of California at San Francisco (UCSF)

Collaboration with UCSF is a valuable component of program and curriculum development envisaged for the PhDCR. In 1999, the Department of Epidemiology and Biostatistics at UCSF received an NIH K30 award to expand UCSF curriculum in clinical research training. The UCSF Clinical Research Training Program has been nationally recognized as a premiere academic program. Indeed, Dr. Hulley's textbook, *Designing Clinical Research*, is used uniformly as setting the standard for excellence in clinical research training methods. UH MSCR staff members have been working closely with Stephen Hulley, MD, MPH, Program Director of the UCSF program, and his colleagues Charles McCulloch, PhD, and Bernard Lo, MD, to design the MSCR. To ensure excellence in the PhDCR, these distinguished faculty have agreed to assist with refinement, implementation, and evaluation of PhDCR activities.

Collaboration with Tuskegee National Center for Bioethics in Research and Health Care (NCBRHC)

Another important component of the proposed PhDCR is the prospect of collaborations with the NCBRHC at Tuskegee University. In October 2003, the NIH National Center for Research Resources (NCRR) and the National Center on Minority Health and Health Disparities (NCMHD) awarded a \$14 million grant to Tuskegee University to complete its NCBRHC. The award will support research and teaching facilities for faculty, researchers and visiting scholars for studies in bioethics, public health and integrated bioscience programs. As noted by NIH Director Dr. Zerhouni, "the Bioethics Center at Tuskegee University helps us promote sound medical research practice by educating researchers and bringing greater attention to bioethical issues that impact disadvantaged populations."¹³ In keeping with this vision, we are excited about the opportunity to work with Tuskegee in adding to the critical mass of committed scholars and scientists who will collaborate in the development of research designed to improve health outcomes in such populations.

JABSOM's RCMI-funded Clinical Research Center has established collaborations with Tuskegee University and other minority institutions on an NIH P50 Center application in response to RFA HG-03-005. The application proposes a Minority Clinical Research Network with a multidisciplinary team of geneticists, ethicists, lawyers, social and behavioral scientists working to address ethical, legal and social implications of the Human Genome Project for racial and ethnic minorities. Tuskegee will offer bioethics expertise for the five minority clinical research centers involved (UH, University of Puerto Rico, Morehouse School of Medicine, Meharry Medical School, Drew University of Medicine and Science). If funded, this Network will support collaborative research, training and community outreach. In addition, UH and Tuskegee University have each been awarded funds for an NIH EXPORT program. The proposed Network and existing EXPORT programs

create opportunities for PhDCR graduates to foster partnerships with Tuskegee in connection with parallel health disparities research themes. As the nation's first bioethics institute dedicated to addressing issues that involve African Americans and other underserved populations, Tuskegee's center could offer tremendous insight into development of our curriculum as we begin to explore issues relevant to Hawai'i's underserved populations. We are honored that Dr. Grandison from Meharry and Dr. Sodeke from Tuskegee have expressed their willingness to offer mentoring and guidance as well as explore collaborative partnerships in connection with this application (See Appendix I for letters of support).

PROPOSED CURRICULUM DEVELOPMENT PLAN

We propose to offer a PhD program that will emphasize epidemiological, methodological, cultural, and ethical issues inherent to clinical research in order to improve the quantity and quality of community-based research in the state. With this objective in mind, we seek to refine and implement a rigorous curriculum that will train scientists to conduct clinical research in emerging areas of biomedical and behavioral science. Encouraging the integration of quantitative, physical, behavioral, social and psychological sciences with the traditional biomedical sciences will promote the creation of new interdisciplinary research areas, as well as foster trainees' development as leading investigators in the emerging field of health disparities research.

Adult learning theory and problem-based learning will be used to ensure that graduates develop the skills to become self-directed learners. The three competency domains include applied biomedical ethics, cultural competence, and multidisciplinary team building. All of the required courses, which will intensify clinical research training, have been specifically designed for the proposed PhDCR. Although MSCR students obtain foundational training in bioethics and cultural competence, the PhDCR will offer in-depth analytical and theory-generating interdisciplinary experiences that are not currently available in the MSCR. The proposed required PhDCR curriculum is explained in Table 1 and followed by specific course descriptions:

Table 1: Competency-based Curriculum for the PhDCR

Competencies	Objectives
Research: Develop and implement ethically and culturally appropriate clinical research that addresses health disparities in Asian and Pacific Islander populations.	Conduct clinical research with cultural competence. <ul style="list-style-type: none"> • Analyze and synthesize literature to ascertain state of the science in regard to selected areas of clinical research, especially health disparities in Asian and Pacific Islander populations. • Use the Internet to access clinical research information. • Apply appropriate research methodologies to answer clinical research questions. • Demonstrate successful scientific writing skills by producing scholarly works and writing an approved clinical research proposal. • Make correct inferences from data. • Apply clinical research findings by implementing and monitoring an action plan based on relevant data.
Professionalism/Ethics: Conduct ethically responsible and culturally competent clinical research.	<ul style="list-style-type: none"> • Demonstrate knowledge of laws, regulations, and policies related to the development and implementation of protocols. • Apply ethical principles and cultural competence in the design and conduct of clinical research, especially with disadvantaged and underserved populations.
Culturally competent leadership and communication: Establish community-based research networks in area of interest.	<ul style="list-style-type: none"> • Communicate in a culturally competent manner with persons from diverse cultural, socioeconomic, educational, and professional backgrounds and with persons of all ages and lifestyle preferences. • Communicate effectively in writing and voicing demographic, statistical, and scientific information for professional and lay audiences.
Interdisciplinary collaboration: Work collaboratively, interdependently and effectively with other members of the clinical research team.	<ul style="list-style-type: none"> • Manage clinical research project, including budget. • Recruit and supervise necessary staff for clinical research project. • Demonstrate the ability to manage research team task assignments. • Demonstrate effective interpersonal skills, including the ability to work interdependently with other clinical research team members.
Self-directed learning: Demonstrate self-directed learning skills.	<ul style="list-style-type: none"> • Be able to obtain appropriate feedback, consultation, and/or review before, during, and after a research project. • Conceptualize and synthesize the state of the science related to selected clinical research questions.

Foundations of Biomedical Ethics (3 credits)

This course will explore the foundations of bioethics. Traditional notions of beneficence, nonmaleficence, autonomy and distributive justice will be discussed and challenged. The nature of health and disease, the definition of death, the morality of abortion, infanticide, euthanasia, physician-assisted suicide, germline genetic engineering, and triage decisions, for example, will be addressed within an integrated consideration of bioethics. Material regarding social justice, health care reform and research ethics, particularly in ethnic minority populations, will be reviewed. Issues will be considered from a broad perspective as well as within an Asian Pacific context. International and national legal and policy issues will be discussed, particularly as relevant to genetics, genomics and end-of-life decision making, as well as a range of other topics.

Applied Biomedical Ethics (3 credits)

This course will delve more deeply in biomedical ethics by using case studies to incite discussions on topics such as: gene therapy, gene enhancement, genetic counseling, informed consent, health care professional/patient and investigator/study participant communication, advanced directives and living wills, clinical research in developing countries, clinical research in ethnic minority and socio-economically disadvantaged populations, and non-discrimination in health care and research settings. This course will encourage rigorous debate of complex issues. Trainees will refine analytical skills in order to approach problems by assessing benefits, risks, and alternatives and evaluating ethically acceptable solutions.

Cultural Competence in Biomedical Research I (3 credits): This course will teach trainees to approach multidisciplinary research from a culturally sensitive perspective. This will entail a heightened awareness of the relationship between cultural and social beliefs and behaviors, particularly in health care and research settings. Trainees will be cautioned not to establish stereotyping strategies or “cookbook practices” that are assumed to apply to all individuals based upon racial or ethnic background, but rather to empathize with the patient in his or her unique circumstances. Communication skills, consideration of socioeconomic factors, racism and bias, and broad understanding of historical, cultural and social context will be fostered.

Cultural Competence in Biomedical Research II (3 credits)

This course will explore topics in cultural competence in greater depth, encouraging trainees to address issues from a unified yet flexible conceptual framework. This course will involve building knowledge, skills and action plans to address a range of learning styles and to appreciate and benefit from diversity. Trainees will integrate content from different groups and cultures (content integration), learn to use teaching and working methods that facilitate achievement for all (equity pedagogy and mutual engagement), develop democratic attitudes, values and behaviors to reduce prejudice, and understand how knowledge is created and culturally influenced (knowledge construction). Trainees will develop comfort with differences, ability to control and change false beliefs and assumptions, and respect and appreciation for values and beliefs that differ from their own. Suggested topics include: operationalizing culturally competent care; using cultural audits to assess competence level; instituting climate change; improving customer service through cultural competence; conflict transformation and cultural healing; cultural competence educational activities; community engagement in participatory research; primary care practice-based research networks; diversity councils; awareness of gender, sexual preference, age, ethnicity and other factors; violence prevention and sexual harassment prevention; fostering a sense of community and social capital to build trust and networks; creating a wellness culture (for health care professionals as well as patients/study participants); and linking cultural competence to eliminating health disparities.

Team Building Seminar Component (3 credits)

Enrollment in a one-credit seminar each semester during the curriculum will be required. The team building component will focus on teaching trainees to work independently and collaborate in order to accomplish specific results. Trainees will be exposed to group dynamics, communication, healthy competition, conflict resolution, and innovative means of crossing boundaries between departments, organizations, industries and disciplines. They will develop skills to create a culture of respectful interaction, build working relationships, manage authority and responsibility and focus on achieving positive results. By learning to function as a unified whole and seek a shared vision, team members will learn to overcome traditional organizational boundaries to include and benefit health care providers, investigators, patients, study participants, and the broader support system within which they interact. Suggested topics include: frameworks for integration of socio-behavioral and biomedical research teams; diverse leadership styles; self-assessment and personality type evaluation; creative brainstorming and cross-disciplinary problem-solving; mind mapping techniques; mutual empowerment and engagement; negotiation and conflict resolution skills; reducing barriers to interdisciplinary collaboration; theoretical and practical aspects of managing interdisciplinary teams; team meeting agendas; delegating tasks and responsibilities; and developing productive partnerships. To meet requirements, trainees will need to actively participate in all meetings, accept responsibility for seminar presentations, perform satisfactorily on peer and mentor evaluations, and submit self-evaluation portfolios describing learning goals and outcomes. Through the seminar, trainees will learn to focus on collective goals

rather than individual performance. As a result, trainees will greatly increase their capacity to collaborate in obtaining NIH and other extramural funding for conducting interdisciplinary clinical research.

TABLE 2: Full-time Curriculum Model

	Year 1	Year 2	Year 3	Year 4
Spring	Begin MSCR Introduction to Clinical Research and Informatic Applications in Research (2) Legal and Regulatory Issues and Bioethics and Institutional Review Boards (2) Applied Clinical Epidemiology and Biostatistics (3) Clinical Research Seminar (1) 8 credits	Thesis Research (4) Clinical Research Seminar (1) 5 credits	Applied Biomedical Ethics (3) Cultural Competence II (3) Clinical Research Seminar (1) 7 credits	Dissertation Research
Summer	Bioanalytic Methods in Clinical Research I(2) Applied Biostatistics in Clinical Research (3) Elective course opportunity (2) Clinical Research Seminar (1) 8 credits	Thesis Research (4) Clinical Research Seminar (1) Complete MSCR 5 credits	Clinical Research Seminar (1) 1 credit	Dissertation Research
Fall	Clinical Research Protocol Development and Scientific Writing (3) Elective course opportunity (3) Clinical Research Seminar (1) 7 credits	Begin PhD Foundations of Biomedical Ethics (3) Cultural Competence I (3) Clinical Research Seminar (1) Elective course opportunity 7 credits	Dissertation Research	Complete PhD

Total 48 credits MSCR Possible Electives:

Possible elective choices:

Qualitative Research Methods (3)

Survey Research Methods (2)

Medical Informatics (2)

Gender Considerations in Research (2) **18 credits**

Multivariate Methods (3)

Principles of Human Genetics (3)

Health Economics and Policy (3)

If necessary, some trainees may complete their research practicum over a longer period of time by reducing the number of credits acquired during a specific semester and completing the 8-credit requirement as appropriate. This option will require enrollment in a no-credit seminar. All outcome objectives for the program remain constant. Students who have completed previous curricula may request waivers in order to meet course requirements. The Department will determine on a case-by-case basis whether waivers will be granted in accordance with Graduate Division policy.

PROSPECTIVE PROGRAM PARTICIPANTS

The PhDCR will target individuals likely to remain in Hawai'i to participate as members of multidisciplinary translational research teams. We will recruit candidates from the following groups:

- Junior faculty members at JABSOM, CRCH, SONDH, PBRC, School of Arts and Sciences, School of Law, and School of Social Work, etc.
- Fellows in Community Pediatrics, Geriatrics, Neonatal/Perinatal Medicine, Surgical Critical Care, and Cardiology Fellowship Programs.
- Senior and/or Chief Residents in Pediatrics, Internal Medicine, Family Practice, Ob-Gyn, Psychiatry, and Surgery (accepted upon successful completion of their residency-training program).
- Post-docs from graduate research programs.
- Community-based physicians with a desire to acquire clinical research training.
- New graduates from medical school or PhD programs after one year of a transitional internship or post-doctoral experience.
- Selected PhD students from departments of anthropology, engineering, psychology, etc.

When a needs assessment was conducted for the MSCR, we found a total of 64 individuals were interested in pursuing the program. We anticipate a similar level of interest in expanding the program into a PhDCR. Ten trainees are currently enrolled in the MSCR, at least five of whom have already expressed a desire to pursue the PhDCR, if offered. Our goal is to enroll three to five trainees at the end of the planning year. A program description will be distributed to Deans and Department Chairs for dissemination to their faculty, fellows, and senior level residents.

Each applicant will complete an application stating career goals and relevance of the program to those goals. Priority will be given to applicants wishing to pursue a research project with an aim to “reduce health disparities in minority populations.” Applicants must obtain letters of support from their Dean and/or Department Chair and a letter assuring protected time. We will require a signed statement that 70% time, including three full week days, remains free for PhDCR courses and clinical research projects. Each trainee will interview with two CAC members and will meet with the PI. Applicants will be evaluated and selected based upon academic and clinical training, research experience and/or interest, career goals, and letters of recommendation.

The PhDCR will provide the impetus to expand and develop other training and fellowship programs. These may be division- or department-based. Funding may come from the inclusion of fellow and post-doctoral stipends in future program applications. We expect the fellow applicant pool to increase with the establishment of the PhDCR as applicants begin to see that this training opportunity lends a distinct advantage to their career development.

MENTORING OPPORTUNITIES AND ACTIVITIES

Mentors

At least 37 funded investigators from JABSOM, SONDH, CRCH, PBRC, and other faculty from related disciplines, will mentor PhDCR trainees (See Appendix II). The faculty will ensure that trainees and mentor teams are established within the first six months of enrollment. Each trainee will have at least two mentors; one research/science mentor, and one epidemiologist or biostatistician. In addition, each PhD candidate will have a program committee and dissertation committee composed of Graduate Division faculty with expertise in the core content areas of bioethics, cultural competence and team building. Mentor team/trainee pairing will require an interview and Memorandum of Agreement (MOA) to document the relationship. The MOA will detail terms of research involvement, mutual expectations, specifics related to the final product (e.g., determination of first author/second author), and procedural and financial matters. Defining and documenting roles and expectations will minimize potential conflict and pave the way for fruitful mentoring relationships. Initially, trainees will meet with research/science mentors on a weekly basis. Throughout the program, trainees will meet with their mentoring teams monthly to ensure adequate guidance and support. The PI will attend mentoring sessions during the initial stages to ensure appropriate mentor team/trainee relationships are formed. Participating mentors will receive financial support to partially offset additional time and expenses. Trainees who are also enrolled in JABSOM fellowships will already have mentors, and the PhDCR will offer additional oversight of mentoring activities.

Research experiences will vary from working in wet labs in order to learn molecular techniques relevant to translational research, participating in patient visits at the CRC, Community Health Centers, or other appropriate facilities, refining protocols, chart review, data input and analysis, and activities necessary to complete the requirements of the PhDCR, including preparation of a final manuscript. Each trainee will engage in all scheduled lab meetings and work-in-progress sessions to gain insight into the research process as well as benefit from other members of the multidisciplinary research team, i.e., post-docs, research associates, and technicians. Joint work-in-progress sessions will be held in order to encourage sharing of trainees' experiences and expansion of research horizons.

Other Learning and Development Opportunities in Health Disparities Research Programs at UH

It is important to note that biomedical research in diverse ethnic populations is a vital component of the research program at UH. Indeed, a recent review of the NIH CRISP database reveals that out of 96 UH-based biomedical research grants, 42 programs involve aspects of minority health, at least 12 of which pertain directly to health disparities research, including Project EXPORT and the Endowed Chair Award described below. In addition, the PI for this grant, Dr. Harrigan, and the collaborator Dr. Easa, are working with the Waimanalo Health Center to conduct a "Study of Oral Health Disparities in Adult Asian & Pacific Islanders" (RFA: DE-02-005). By designing culturally competent pilot studies to assess the oral health status of pregnant women, we are strengthening our relationship with WHC, whose leaders and patients are increasingly willing to participate in further studies that are based upon sound scientific principles and strong community partnerships.

Numerous programs aimed at the faculty recruitment of scientists of Asian, Native Hawaiian and Pacific Islander descent are currently in place or in the planning process. They include JABSOM-based programs such as the newly formed Department of Native Hawaiian Health and the Native Hawaiian Center of Excellence, as well as the more global effort of JABSOM to encourage the recruitment of ethnically diverse scientists. The CRC offers inexperienced investigators the opportunity and infrastructure to develop pilot studies and to pursue funding opportunities and investigator development awards. The new Community Pediatrics Fellowship enables fellows to refine research skills in the conduct a culturally competent project at a community health center. Opportunities for minority faculty development have also been increased with the new MSCR, the expansion of which will prove invaluable in providing clinical research training and education to junior and minority faculty at JABSOM.

The PhDCR will play a vital role in development of junior faculty. The relatively small number of students enrolled in the PhDCR will allow the PI and CAC to actively participate in fostering investigator development. The addition of the PhDCR to academic offerings at JABSOM will add to the arsenal of skills and create opportunities for junior and minority investigators. Since community-based participatory health disparities research is a priority theme for both the NIH and JABSOM, we expect excellent synergy with additional funding opportunities for research projects. Finally, graduating trainees will be invited to participate as mentors for incoming trainees, which will lend consistency and collegiality to the team building and investigator development aspects of the PhDCR.

Principal Investigator

The PI, Rosanne Harrigan, EdD, MS, APRN-Rx, FAAN, is an advanced practice nurse and researcher who will provide leadership through all phases of this clinical research curriculum program. Dr. Harrigan has been a Professor at JABSOM since 2002. Dr. Harrigan is currently the PI for the MSCR program. She is also the Associate Dean for Interdisciplinary Research and Chair of the Department of Complementary and Alternative Medicine. She has extensive experience in neonatal nursing practice, research, education and administration. She developed the first neonatal nurse practitioner program in a university-based graduate program and has been awarded the Distinguished Neonatal Nurse Award by the National Association of Neonatal Nurses and the ANA Maternal Child Health Nurse of the Year Award. Dr. Harrigan served as Dean of SONDH from 1992-2002. She has extensive continuous clinical, teaching, and research experience. She recently served as PI

for a Hawai'i Medical Service Association (HMSA) Foundation randomized clinical trial to evaluate the relationship between cost and quality outcomes of medically fragile children who received day care services and case management as compared to those who did not following discharge to family care in the community. She is also devoted to enhancing health care services for women, and holds the Matsuda Professorial Chair in Women's Health. She serves as a co-investigator for the Clinical Center for the Clinical Trial and Observational Study of the Women's Health Initiative. Dr. Harrigan has served as the Editor for the Loyola University Press Values and Ethics Series and as a member of the National Advisory Council for Nursing Research of the NIH. The NIH National Research Advisory Councils are consulted by and provide advice to the Director of the NIH concerning research programs. In addition, Dr. Harrigan's research activities focus on culturally sensitive health promotion, exemplifying her commitment to addressing the diverse health care needs of Hawai'i's multiethnic population. Dr. Harrigan's expertise in women's health, nursing, education, research and administration will enable her to provide significant leadership for the PhDCR. Moreover, her expertise in cultural competence and curriculum development at UH will facilitate the process of refining and implementing the new interdisciplinary PhDCR program.

Collaborators

David Easa, MD, Program Director of the CRC, Professor of Pediatrics and Obstetrics, and Associate Dean for Clinical Research, will serve as a primary collaborator. Dr. Easa is an experienced researcher and administrator who has resided at JABSOM, Department of Pediatrics, for the last 27 years. Dr. Easa was chief of the Division of Neonatology until 2000 and Director of the Neonatal/Perinatal Fellowship Program until 1993. Dr. Easa's research focus has been the lung, and, since 1995, he has focused primarily upon health disparities research. His long-term relationships with faculty in both basic and clinical sciences and his broad perspective on health disparities research issues will enable him to contribute to development and implementation of the PhDCR. Dr. Easa has maintained a strong research interest as well as an involvement in the Neonatal/Perinatal Medicine Fellowship, having mentored and supervised 29 fellows since arriving in 1977. Dr. Easa's research interests formed the basis for some of the fellows' research projects. Dr. Easa will serve as the link to clinical faculty and will assist with refinement and implementation of the clinical research curriculum. He will facilitate recruitment of trainees and mentors, will serve as a mentor, and will participate in developmental activities for trainees. Dr. Easa is currently the Co-PI for the MSCR program.

Zoë H. Hammatt, Esq., MPhil, has been working with the investigators as a grant writer for the past three years. She is a licensed attorney, having graduated from the UH law school with a Certificate in Pacific Asian Legal Studies. She also earned a Master of Philosophy in Law and Ethics in Medicine from the University of Glasgow in Scotland. Ms. Hammatt holds an appointment as a fellow at the St. Francis International Center for Healthcare Ethics at the St. Francis Healthcare Systems in Honolulu. She has authored and delivered numerous presentations on biomedical topics. Her organizational skills gained through her work as an attorney make her an excellent candidate for managing the PhDCR program. Ms. Hammatt will assist the PI in the overall development and management of the curriculum, program operations, and supervision of personnel, and will serve as the secondary contact and coordinator between the faculty, program participants, and institutions involved in the program. Specifically, she will participate in the development of course material with each of the assigned faculty, act as liaison between the UCSF, Tuskegee, and UH faculty, and facilitate the utilization of institutional resources. Ms. Hammatt will also contribute to the teaching efforts of the PhDCR, particularly in the bioethics component, under the guidance of Dr. Bernard Lo.

Charon Pierson is an Associate Professor of Geriatrics at the John A. Burns School of Medicine. She has been in clinical practice as a geriatric nurse practitioner for 16 years and has taught nurse practitioners since 1986. As part of her work in medical sociology she researches and publishes on issues related to end-of-life decision making. She has expertise in ethno-methodology and conversation analysis within the context of multidisciplinary hospital rounds. She will assist with qualitative research aspects of the PhDCR program.

Advisory Committees

There will be two advisory committees for the PhDCR, a Curriculum Advisory Committee (CAC) and an External Advisory Committee (EAC).

Curriculum Advisory Committee

We envisage that the CAC will be composed of the following:

- Al Katz, MD: Epidemiology
- Lon White, MD, MPH: Epidemiology
- Andrew Grandinetti, PhD: Epidemiology
- James Davis, PhD: Epidemiology and Biostatistics
- Richard Breslin, PhD: Psychology (Management Science) and Business
- David Hanlon, PhD: Pacific Studies
- Damon Sakai, MD: Assistant Dean for Student Affairs, JABSOM
- Raul Rudoy, MD: Human Subjects
- Robert Cooney, MD: CRCH representative
- Stephen Hulley, MD: Epidemiology, UCSF consultant
- Valli Kanuha, PhD: Native Hawaiian representative, Social Work, Gender issues, Cultural Competence
- Charon Pierson, RN, MS, GNP, PhD: Sociology of Aging
- Kathryn L. Braun, DrPH: Center on Aging, End-of-life issues, Cultural Competence
- Eric Yamamoto, JD: Law, Cultural Competence
- Marla Berry, PhD: Genomics
- David Easa, MD, Program Director, Clinical Research Center

Additional faculty from the schools and departments of business, philosophy, psychology, and other disciplines deemed relevant during the planning phase will be invited to participate as members of the CAC. The CAC will meet quarterly. CAC duties will include program oversight, curriculum development, recruitment and selection of trainees, and program evaluation. The committee will also monitor and evaluate each trainee's progress and investigator development. The CAC will recommend changes in a trainee's study or research, or if necessary, removal from the program. The CAC will provide a summary report as part of the annual progress report. The summary report will describe CAC activities and progress of the PhDCR program.

External Advisory Committee

The EAC will be composed of the following:

- Stephen Hulley and Bernard Lo: UCSF faculty
- Stephen Sodeke: Tuskegee faculty
- David Grandison: Meharry faculty
- Sam Shomaker: Vice Dean of JABSOM at UH
- Ho`oipo DeCambra: Community Representative

The EAC will ensure excellence in clinical research, bioethics, cultural competence, team building, and relevance to community needs. The UCSF and Tuskegee consultants will confer with course directors and the PI to help improve course offerings and will attend one CAC retreat per year in connection with a seminar for PhDCR participants.