

CICADA RCMAR SCIENTIST FAQ

Congratulations, you are a CICADA RCMAR Scientist by virtue of having your pilot grant awarded through Penn's RCMAR P30.

What is a RCMAR P30?

The National Institute on Aging funds 18 Resource Centers for Minority Aging Research (RCMAR). These centers are designed (1) to enhance the diversity of the aging research workforce by mentoring promising scientists from under-represented groups for sustained careers in aging research in priority areas of social, behavioral, and economic research on aging, and (2) to develop infrastructure to promote advances in these areas while simultaneously increasing the number of researchers focused on health disparities and the health and well-being of minority elders.

What is CICADA?

CICADA, the *Center for Improving Care Delivery for the Aging*, is Penn's RCMAR. Its aim is to train emerging scientists from underrepresented backgrounds in the interdisciplinary science of HSR as it applies to the most pressing issues for aging Americans, particularly minority elders.

How are CICADA RCMAR Scientists selected?

CICADA will select three new RCMAR Scientists each year through a competitive call for pilot grants that last one year. We will target three categories of trainees to become RCMAR Scientists: (1) MD and MD/PhD clinical fellows who have completed their residency, (2) PhD postdoctoral trainees, and (3) MD/PhD, MD, and PhD junior faculty [defined as Instructor or early-stage (<3 years) Assistant Professor]. Eligible trainees are persons who are underrepresented in research based on the Notice of NIH's Interest in Diversity (NOT-OD-15-053) definitions, including Blacks or African Americans, Hispanics or Latinos, American Indians or Alaska Natives, Native Hawaiians and other Pacific Islanders; individuals with disabilities; and individuals from disadvantaged backgrounds. Trainees must either be actively engaged in HSR in aging relevant to CICADA themes or committed to developing new research skills in HSR applied to aging and must be at Penn during their training as a RCMAR Scientist.

How long am I a CICADA RCMAR Scientist?

Once the RCMAR Scientists have completed their 1-year pilot project, they will remain a part of the CICADA community and continue to benefit from CICADA's research training and support, as the REC is committed to developing RCMAR Scientists into successful independent researchers in HSR for aging populations.

How are CICADA RCMAR Scientists supported?

- CICADA will provide mentoring and research training to RCMAR Scientists to support them in becoming independent health services researchers in aging.
 - RCMAR Scientists will be matched to established Penn faculty as REC mentors who are diverse in their disciplines and research interests and who have a documented productive history of mentoring for research career development;
 - RCMAR Scientists will be provided structured training and mentorship in health services research design and methods, including multidisciplinary collaborative approaches to research and responsible conduct of research
 - RCMAR Scientists will be provided structured training and mentorship in other career development areas such as leadership; career planning; strategic planning for research independence; and core writing and presentation skills for grant proposals, scientific publications, and other dissemination outlets.
- CICADA will grow and nurture a community of mentors and RCMAR Scientist by developing and sustaining an infrastructure to promote advances that improve the health, wellbeing, function, and independence of older Americans—particularly minority elders—through transformation in health care delivery.
- CICADA will develop a research infrastructure of data resources, analysis support, and methods expertise that will be easily accessible to RCMAR Scientists and all CICADA-affiliated researchers.

REC SUPPORT

C.5.2.a. Research Mentoring. The Research Mentor will guide the scientific development of the RCMAR Scientist, providing the expertise, resources, environment, and—through the CICADA Pilot Program—support for the trainee’s research project. In addition to training in the research skills for the pilot study, the Research Mentor will ensure that the RCMAR Scientist learns core skills in research administration (e.g., interfacing with the IRB, preparing grant progress reports, and managing a budget) as well as methodologies in HSR in aging. The Research Mentor will work with the RCMAR Scientist and the Career Mentor to develop a mentoring plan that will include (1) a timeline for completion of the pilot study within one year, (2) plan for resulting publications, (3) additional course work to support and develop research skill, and (4) the conferences and seminars the RCMAR Scientist will attend.

C.5.2.b. Instruction in the Responsible Conduct of Research (RCR). All RCMAR Scientists will participate annually in Penn's RCR training program, which includes web-based programs, small group workshops, and textbooks. This training satisfies requirements set by the NIH for individual fellowships and training grants. Topics covered are acquisition and management of data, collaborative science, conflicts of interest and time, mentoring, peer review, research misconduct, responsible authorship and publication, scientists as responsible members of society, use of animals in research, and use of humans in research. The curriculum is presented through the following mechanisms: (1) KnowledgeLink, which provides student-specific access to online training in select topics through the Collaborative Institutional Training Initiative (CITI). (2) Case-study modules for RCR-based lab meetings, which cover all RCR topics. (3) Textbooks that provide extensive discussion of each of the RCR topics, including Scientific Integrity, F.L. Macrina, 4th ed. and Responsible Conduct of Research, A.E. Shamoo and D.C. Resnick, 3rd ed.

C.5.2.c. CICADA Lab. The REC will host a “lab” for RCMAR Scientists and the affiliated CICADA community, which will meet every other month. It will provide RCMAR Scientists with a forum come together to develop research ideas, present works in progress, and get feedback from each other on ongoing research. The Lab will be hosted by LDI and will be attended by CICADA and REC leadership, RCMAR Scientists, mentors, and other members of the community and will serve as a forum for RCMAR Scientists to develop, vet, and refine ideas with feedback from more senior faculty and community members.

C.5.2.d. Mentoring in health disparities research. In the months when a CICADA Lab is not scheduled, CICADA will host a health disparities research working group, with the goal of providing RCMAR Scientists with hands-on training and mentoring in methodology for working with diverse aging populations and in the use of secondary data in areas of investigation related to health disparities among the elderly. These working groups will be attended by all RCMAR Scientists and CICADA and REC leadership and will rotate between methodological lectures/discussions by faculty experts, journal clubs, and research in progress presentations, all focused on learning the skills necessary to ensure that the RCMAR Scientists develop the skills necessary to ensure that their research can address disparities in health and health care.

C.5.2.e. RCMAR Core Curriculum: Formal coursework in research methods and aging.

HSR methods coursework. Each RCMAR Scientist will be required to participate in 1-2 courses to develop methodological skills as a health services researcher, chosen in consultation with mentors. A series of established courses at Penn’s MSHP program will be available for the RCMAR Scientists, including

- *HPR 603-Health Services and Policy Research Methods I: Primary Data Collection and Analysis.* This course introduces students to commonly used primary data collection methods, provides examples of how they have been used in HSR. Students define a primary data collection research project and develop methods necessary to conduct the project.
- *HPR 607-Health Services and Policy Research Methods II: Causal Inference using Observational Data.* This course explains and demonstrates common empirical methods used to approach causal questions in health services and policy research using observational data. To facilitate learning of these methods, the course uses a combination of readings, lectures, discussions of the applications of the empirical methods, and Stata lab demonstrating the implementation of these methods.
- *HPR 604-Introduction to Statistics for Health Policy.* This course introduces basic concepts of statistical thinking and analysis, including descriptive statistics, hypothesis testing for differences between two or more groups, and correlation and prediction.
- *HPR 608-Applied Regression Analysis for Health Policy Research.* Students learn how to select an appropriate regression model for a given set of research questions/hypotheses, assess how adequately a given model fits a particular set of observed data, and how to correctly interpret the results from the model

fitting procedure.

- *HPR 580-Outcomes Research*. This course addresses issues related to the measurement of quality in health care. Included is a review of the classical structure-process-outcome quality paradigm as well as observational, or quasi-experimental, research studies. It addresses the advantages and limitations of alternative designs and the role of clinical risk adjustment in observational studies of medical interventions.
- *HPR 611-Implementation Science in Health and Health Care*. In this course, a suite of qualitative, quantitative and mixed research methods that address the features of implementation science are highlighted. The course is largely case-based, evaluating examples of both successful and unsuccessful efforts in knowledge translation and evidence dissemination.

Ageing-specific coursework. RCMAR Scientists will also be required to enroll in at least one class focused on issues related to health care delivery of aging populations. Current Penn courses include:

- *Health Care for Aging Populations: Economics and Policy*. This seminar-style course addresses the organization and financing of the health care system; health care delivery; and the economics of health and wellbeing. Specific topics include health insurance (including private market insurance for seniors, retiree health insurance, Medicare, Medicaid, and long-term care insurance), long-term care markets, financing of long-term care, hospice/end of life care, retirement, and caregiving.
- *Management of Health Care for the Elderly*. This course reviews care provided to seniors within a variety of institutional settings (hospitals, nursing facilities, various senior housing levels) as well as outpatient and home care services. A broad range of special programs and services are reviewed, such as sub-acute care, long-term care insurance, Medicare Risk Programs, elderly housing, adult day care, managed care, Medicare Part D, case management, and hospice.
- *Public Health Dimensions of Cognitive Aging*. Course topics cover defining cognitive aging, measuring cognition, the cognitive trajectory with aging, epidemiology and surveillance, risk factors for cognitive decline with attention to prevention and intervention opportunities, the history of cognitive aging, ethics and public policy related to cognitive aging, and public messaging and awareness.

C.5.2.f. Lectures, seminars, and retreats for RCMAR Scientists. RCMAR Scientists will be part of a vibrant and active HSR community at Penn with access to a large number of lectures, seminars, and retreats that focus on HSR as well as aging. A sample of these is described below.

- *Penn Institute on Aging (IOA) Visiting Scientists Series* is a series of guest lectures by pre-eminent scientists in the field of aging in basic and clinical research, social services and issues, and public policy.
- *Penn IOA Sylvan M. Cohen Annual Retreat* brings leading speakers to campus to join with Penn faculty to discuss special topics, such as behavioral economics and health and end-of-life research.
- *Interprofessional Gerontology and Geriatrics Seminar* is a weekly seminar hosted by the Division of Geriatrics including journal club, research presentations, or teaching on an aging-related research topic.
- *HSR Work-in-Progress Seminar* is a bi-monthly seminar giving Penn faculty the opportunity to present a current applied-research project or grant proposal, with the goal of receiving critical peer feedback.
- *LDI Research Seminar Series* is a monthly series with invited speakers to stimulate interdisciplinary HSR, campus-wide interactions and networking.
- *Penn-CMU Roybal Center Retreat* is an annual two-day retreat on behavioral interventions in an aging population, including research presentations, working groups, and an opportunity to build collaborations.

C.5.3. Aim 3.c: Providing CICADA Scientists with structured training and mentorship in other career development areas such as leadership, career planning (including work-life balance), strategic planning for research independence, and core writing and presentation skills for grant proposals, scientific publications, and other dissemination outlets

C.5.3.a. Career Mentoring. Career Mentors assist RCMAR Scientists in balancing research and other demands (e.g., clinical or teaching); strategically selecting and competing for research awards (with Research Mentors); networking and developing opportunities to present research findings; selecting and negotiating for faculty positions; and negotiating the challenges of an academic career, such as work-life balance.

C.5.3.b. Research career skills training. RCMAR Scientists will have access to a series of workshops offered annually that are an ongoing resource that can be used at any time, whether during the pilot year or after.

- *Grant Writing Workshops*. The MSHP hosts a K-Award writing group each summer for 8-10 postdoctoral participants who are developing a K-award proposal. This hands-on workshop meets weekly to (1) learn basic grant-writing skills, (2) receive and provide feedback on a proposed set of specific aims, and (3) develop a set of specific aims and a detailed outline for the remainder of the proposal. The Office of

Postdoctoral Programs also offers several K-award workshops, including a step-by-step guide to preparing an outstanding and successful application and a mock study section). Each RCMAR Scientist will participate in at least one workshop.

- *The Art of Networking*. An interactive workshop to develop and maintain mutually valuable relationships including techniques such as: networking basics; uncommon and unexpected networking techniques; and principles to create comfort engaging others and building rapport with professionals at all levels.
- *The Art of Speaking: Presentation and Public Speaking Skills*. This series of workshops focuses on the organizational structure of an effective technical presentation, how to develop and practice "hallway" mini presentations, and effective design strategies for communicating scientific information.
- *Negotiation Skills Course*. This workshop is an interactive seminar that teaches the essential tools and skills needed to develop and master the art of negotiation. This course will develop negotiating skills and how to put them in practice in everyday life.
- *Scientific Writing Workshop*. This hands-on workshop is aimed at helping attendees communicate more effectively through their writing. Participants bring an abstract to revise with their new writing skills.
- *Business Etiquette Workshop*. This workshop provides critical training in communications, interpersonal and professional etiquette skills to help participants achieve their maximum potential.
- *Career Workshop Series*. This workshop series is designed to provide updates on current market trends, critical job search skills, and types of employment opportunities.

C.5.3.c. Leveraging Penn support for underrepresented trainees and junior faculty. The REC will leverage Penn's Office of Inclusion and Diversity (OID), which was established in 2013 to support underrepresented trainees and junior faculty at Penn. The OID has three strategic goals, which are relevant to CICADA: (1) recruit outstanding talent; (2) retain and ensure success of a diverse community of faculty, staff, and students; and (3) reaffirm the ongoing benefits of inclusion and diversity. To date, the office has documented a 10-fold increase in number of underrepresented faculty, developed a database of potential faculty candidates, and established an OID website. An OID program of particular note is the University of Pennsylvania Health System (UPHS)-Children's Hospital of Philadelphia (CHOP) Alliance of Minority Physicians that aims to develop leaders in clinical, academic, and community medicine through active recruitment, career development, mentorship, social opportunities, and community outreach geared towards underrepresented faculty, house staff, and medical students.