# Research Methods Short Course: Designing and Implementing Your Research Study

Presented by faculty from The Ohio State University Health Sciences Colleges:

**Usha Menon**, **PhD**, **RN**, **FAAN**; Centennial Professor of Nursing; Director, Community Engagement, Center for Clinical Translational Sciences

Joan-Miquel Balada-Llasat, PhD, Assistant Professor, College of Medicine

**Wondwossen Gebreyes, DVM, PhD, DACVPM**, Professor, Molecular Epidemiology; Director, Global Health Programs, College of Veterinary Medicine

Jennifer Kue, PhD, Assistant Professor, College of Nursing

**Laura Szalacha, EdD**, Research Professor; Associate Director, Center for Research and Transdisciplinary Scholarship

This one-day short course on global health research is taught by experienced research faculty from The Ohio State University Health Sciences Colleges. Participants will learn how to design and implement effective research studies and programs by identifying a research problem, developing hypotheses, designing studies to test hypotheses, and developing an effective analysis plan. We will also address the basic tenets of team science and strategies for publication. Course faculty will tailor the content to your global health setting, using case studies and examples that are relevant to the health concerns in your country and your culture. All participants will receive a course packet that will include: copies of all lectures, practice exercises, examples of written grant proposals, and examples of relevant published articles on various course topics.

Participants must be faculty or advanced graduate students who currently conduct research or have had substantive course work in research methods and statistics.

#### **Topics:**

- A. Developing a Research Agenda & Significance (Menon) [30 minutes]
- B: Introduction To Methods: Research Ethics (Kue) [20 minutes]
- C: Research Design (Menon) [20 minutes]

**BREAK: 15 minutes** 

- D: Methods (Sampling, Data Collection, Recruitment, Retention) (Participants must choose one track)
  - Track D.1. Methods for Behavioral Science (Menon, Kue) [45 minutes]
  - Track D.2. Methods for Clinical Diagnostics Track (Balada-Llasat) [45 minutes]
  - Track D.3. Methods for Molecular Epidemiology Track (Gebreyes) [45 minutes]

LUNCH: 1 hour

- E. Nuts and Bolts of Analysis (Szalacha) [90 minutes]
- F. Team Science (Menon) [10 minutes]
- G. Writing for Publications (All as a panel)

#### **Optional: Individual Consultations with Course Faculty**

20-minute consultations will be offered with course faculty when you can discuss your research ideas and get assistance with methods, etc. Sign-up sheets will be available at the start of the workshop. Consultations are offered on first-come basis; you may sign up for time with the faculty of your choice.

## PRESENTER BIOGRAPHIES

#### Usha Menon, PhD, RN, FAAN



Dr. Menon is the Centennial Nursing Professor in the College of Nursing at The Ohio State University, Director of Community Engagement for the Center for Translational Clinical Sciences, and a recognized expert in behavior change theory and interventions. Her intervention research program is on increasing early detection of cancer among aging and vulnerable minority populations and the reduction of health disparities in cancer prevention using rigorous theory-based models of inquiry. Dr. Menon has taught across nursing curricula, trained pre and postdoctoral fellows across biological and behavioral cancer control research, and mentored numerous faculty from nursing, medicine and other disciplines. She was inducted into the Sigma Theta Tau Nurse Researcher International Hall of Fame, selected as a Top 100 Alumni Legacy

Leader by Indiana University School of Nursing, and is an Ambassador for the Friends of the National Institute of Nursing Research. An engaging and passionate public speaker, she is a frequent consultant and presenter to national and international groups of researchers, clinicians, and community members.

### Joan-Miquel Balada-Llasat, PharmD. Ph.D. D (ABMM)



Dr. Balada-Llasat is the Associate Director of the Clinical Microbiology and Special Functions Laboratories at The Ohio State University Wexner Medical Center and an Assistant Professor of Pathology at the Ohio State University. He completed his PharmD from University of Barcelona, a PhD from Tufts University and a clinical fellowship from University of Washington. Dr. Balada-Llasat holds board certification from the American Board of Medical Microbiology. Besides his directorship rules as laboratory director, he is actively involved in clinical research on new laboratory techniques and on global health initiatives in Central America, Africa and India. He has published more than 30 peer-

review scientific manuscripts.

#### Wondwossen A. Gebreyes, DVM, PhD, Dipl. ACVPM



Dr. Gebreyes is professor of molecular epidemiology, Director of Global Health Programs at The Ohio State University, College of Veterinary Medicine and Chair of the Ohio State Global One Health Task Force. He completed his Doctor of Veterinary Medicine (DVM) at Addis Ababa University and his PhD at North Carolina State University. Dr. Gebreyes is the principal investigator of the National institute of Health (NIH) Fogarty International Center, Global Infectious Diseases program on Molecular epidemiology of Foodborne pathogens for eastern Africa including Ethiopia, Kenya and Tanzania. He is engaged in various global capacity building efforts including teaching annual course on molecular epidemiology of infectious diseases in Brazil and Ethiopia currently online on iTunesU. He also directs the Infectious Diseases Molecular Epidemiology Laboratory (IDMEL). He published more than 120 peer-review scientific manuscripts. He currently serves as

president of International Congress on Pathogens at the Human Animal Interface (ICOPHAI). He also serves in scientific advisory capacities globally including Canada Research Chairs Program; Austrian Scientific Competency Center (COMET); Poland Scientific Advisory (POMOST) and others. Dr. Gebreyes is a recipient of several awards including Pfizer Research Award; American Society of Microbiology (ASM) International professorship award among others.

# THE OHIO STATE UNIVERSITY

#### Jennifer Kue, PhD



Dr. Kue is an Assistant Professor in the College of Nursing at The Ohio State University. Dr. Kue has over 15 years of experience working with refugees and immigrants, and medically underserved minority populations. Her expertise is in community health promotion and achieving health equity in underserved ethnic minorities, community-engaged research, and refugee and immigrant health. Prior to her academic career, she worked for 10 years in a non-profit social service organization helping refugees resettle in the United States. She has substantial experience in developing and implementing culturally appropriate health education programs for Asian and African refugee communities, specifically in breast cancer screening, diabetes prevention, and hepatitis B and HIV screening and vaccination. Dr. Kue's research applies the principles of

community-engaged research to understanding and addressing cancer health disparities, including cervical cancer prevention, cancer screening, and survivorship. Dr. Kue's research examines the influence of culture, refugee trauma, and intergenerational communication on cancer screening and health behavior. Her research interests are also focused on global health issues, in particular cervical cancer prevention in low-resource countries, such as in Ethiopia and India.

#### Laura Szalacha, EdD



Dr. Szalacha is a Research Professor and Associate Director of the Center for Research and Transdisciplinary Scholarship at the College of Nursing, The Ohio State University, in Columbus, Ohio. She was trained in human development and psychology, as well as quantitative and qualitative research methodologies, earning her doctorate from Harvard University in 2001. She has extensive experience as a statistician on several longitudinal studies of health disparities, working particularly with underserved minority and marginalized populations (i.e., Puerto Rican development across the lifespan, Portuguese, Dominican and Cambodian immigrants). Her intervention study experiences include studies of breast, cervical and colon cancer screening among South Asian immigrants, Korean Americans, and American Veterans; nurse managed

care and STIs with low-income African American females, and acculturation among immigrants from the former Soviet Union. As a developmental psychologist, her work has a concentrated focus on adolescent development, particularly marginalized groups, such as LGBT youth and children from immigrant families in schools.