BIOGRAPHICAL SKETCH

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NAME: Latha Palaniappan

eRA COMMONS USER NAME (credential, e.g., agency login): LPalaniappan

POSITION TITLE: Professor of Medicine

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Michigan	B.A.	06/1993	Biomedical Sciences
University of Michigan	M.D.	06/1996	Medicine
Stanford University	M.S.	12/2001	Clinical Epidemiology

A. Personal Statement

I have completed more than 240 studies spanning 24 years in the areas of chronic disease prevention. I have received grants from the General Clinical Research Center at the University of Michigan (MO1-RR00042), the National Heart, Lung, and Blood Institute (Individual NIH National Research Service Award - 5F32HL010338, K24 HL150476, and 1UG3HL169648-01), the National Institutes of Health (5K12HD043452-02), the American Heart Association (AHA0885049N), American Diabetes Association (7-12-CT-55), the National Institutes of Diabetes and Digestive and Kidney Diseases (5R01DK081371-02, 3R01DK08137-01A1S1, and 1R18DK096394-01) and the National Institute of Minority Health and Health Disparities (1R01MD007012-01 and 1R01MD017870-01A1). My work to date highlights the limitations of current models and suggests novel approaches to include genetic testing in primary care using evidence-based methods in the future. I am board certified in general internal medicine and currently see patients once a week in the Stanford Center for Personalized Wellness offering Pharmacogenomics consultation to our primary care patients and providers. My research agenda is focused on cardiometabolic disease, specifically in the context of minority health. I am skilled in Patient Oriented Research as well as observational study design and implementation using a variety of datasets, including the National Center for Health Statistics Mortality files, the National Health Interview Survey, the National Health and Nutrition Examination Survey, the American Community Survey, and the U.S. Census. I am also well-versed in clinical trial design, implementation, and analysis. I have recently completed several large-scale clinical trials (NCT02448498, NCT02061579) in primary care, and I also have experience in large scale randomization and electronic health record analysis in clinical practice settings (PMID: 20059568). I have expertise in interpretation of statistical analysis in clinic level randomization and analysis of electronic health record data, including missing data considerations, repeated measures, multivariable regression, multilevel modeling, propensity scores, time-varying covariates, instrumental variables, and causal inference.

I wish to highlight the following ongoing projects.

1UG3HL169648-01 Palaniappan (PI) 08/15/23-07/31/25
NIH/NHLBI
Asian American Prevention Research: A Populomics Epidemiology Cohort (ARISE)
The specific aims of the study are to 1) contribute to the development of a Common Protocol for the study in collaboration with NHLBI, U24, and other UG3/UH3 investigators and establish a state-of-the-art populomics cohort; 2) measure the prevalence or distribution of baseline self-reported health and risk factors and clinical markers in each ethnic group and compare across ethnic groups; and 3) determine relationships among baseline risk factors in each AsA ethnic group, including self-reported stress and sleep as well as heart rate

variability-derived sleep quality and stress from wearable biosensing data, with subsequent (incident) health outcomes during follow-up.
Role: MPI

946917 Palaniappan (PI) 07/21/23-01/31/28
AHA
Trial Of siTes to increAse diversity in clinical triaLs (TOTAL)
TOTAL is a project part of the DIVERSE Strategically Focused Research Network on the Science of Diversity in Clinical Trials. TOTAL aims to test which diversity enhancing recruitment strategy is the most effective in diversifying the clinical trial participant population. The three intervention arms span the community, intra/interpersonal levels, and institutional levels.
Role: PI

1R01MD017870-01A1 Singer (PI) 07/21/23-01/31/28
NIH/NIMHD
Implementing Scalable, PAtient-centered Team-based Care for Adults with Type 2 Diabetes and Health Disparities (iPATH)
The goal of this study is to evaluate impact of practice transformation and identify process elements affecting implementation effectiveness. Analyses will leverage FQHC data by race and ethnicity to examine health disparities.
Role: Co-I

K24 HL15047601A1 Palaniappan (PI) 12/15/19 – 11/30/29
NIH/NHLBI
META2: Mentor, Educate, Train, Advocate Patient-Oriented Researchers in Cardiometabolic Disease
The training of the next generation of patient-oriented researchers (POR) is critical for the advancement of science and medicine in the United States. This K24 award proposal is based on Dr. Palaniappan's plan to use a primary care model as a platform to offer mentorship, education, training for potential K23 awardees. The research aims in this application will provide a variety of innovative POR training venues.
Role: PI

R01 HL14669002 Wu (PI) 04/01/19 – 03/31/23
NIH/NHLBI
Genetic and Stem Cell Model of Cardiac Metabolic Disease
This study aims to understand the underlying mechanisms of type 2 diabetic cardiomyopathy (T2DCM) using patient-specific induced pluripotent stem cell (iPSC)-derived cardiomyocytes and endothelial cells from T2D patients and to understand individual susceptibility to disease development. We will combine clinical information, genomic data, and patient-specific human induced pluripotent stem cell-derived cardiomyocytes and endothelial cells to understand the underlying mechanisms of type 2 diabetes-induced cardiomyopathy.
Role: Co-Investigator

R01 AG05750002 Manber (PI) 09/01/18 – 05/31/23
NIH
RCT of the Effectiveness of Stepped-Care Sleep Therapy in General Practice (RESTING)
This study aims to fill in the science-to-service gap between proven efficacy of cognitive behavioral therapy (CBTi) and future large-scale implementation. We have developed and propose to test a primary-care-friendly steppedcare CBTi model (STEPPED CARE) that offers an easy to use Decision Checklist for matching delivery of CBTi to individual patient characteristics so that patients will begin treatment with the appropriate delivery mode.
Role: Co-Investigator

B. Positions, Scientific Appointments, and Honors

Positions and Employment
2025 – present Associate Dean for Research, Stanford University School of Medicine

2017 – present	Scientific Director of Precision Genomics and Pharmacogenomics in Primary Care, Stanford Division of Primary Care and Population Health
2014 – present	Professor, Stanford University School of Medicine, Primary Care Population Health
2012 – 2014	Medical Director, Clinical Research, Palo Alto Medical Foundation, Palo Alto, CA
2007 – 2014	Associate Investigator, Health Care Research and Policy, Palo Alto Medical Foundation Research Institute, Palo Alto, CA
2006 – 2014	South Asian Consult Service PRANA, Palo Alto Medical Foundation, Palo Alto, CA
2006 – 2012	Director, PAMF-UCSF Clinical Teaching Program, University of California San Francisco School of Medicine, San Francisco, CA
2006 – 2009	Assistant Investigator, Health Care Research and Policy, Palo Alto Medical Foundation Research Institute, Palo Alto, CA
2003 – 2006	Instructor, Stanford Prevention Research Center, Stanford University School of Medicine, Palo Alto, CA
2000 – 2003	Postdoctoral Fellow, Stanford Center for Research in Disease Prevention, Palo Alto, CA
1997 – 1999	Resident Physician, Internal Medicine, Kaiser Permanente Foundation Hospital, San Francisco, CA
1996 – 1997	Internship, Kaiser Permanente Foundation Hospital, San Francisco, CA

Other Experience and Professional Memberships

2002 – present	Fellow of the American Heart Association – Council on Epidemiology and Prevention
2002 – present	American Diabetes Association – Council on Epidemiology and Statistics Member
2000	Visiting Lecturer, University of New South Wales, St. Vincent's Hospital, Sydney, Australia
1999 – 2000	Volunteer Physician, Medecins Sans Frontieres (MSF), Doctors without Borders; Dili, East Timor, Medical Coordinator for Refugee Clinic
1996 – present	American College of Physicians – Fellow
1993 – present	American Medical Women's Society – Resident Member
1993 – present	American Medical Association – Resident Member

Honors

2017	India Community Center: Health Leadership Award
2016	Top Internist in California
2016	Stanford University Asian American Award
2013	Silicon Valley Business Journal Health Hero Award
2011	Who's Who in America 2012 (66th Edition)
2010	Fellow – American College of Physicians
2009	"Top Physician" – Consumers' Research Council of America
2008	"Top Physician" – Consumers' Research Council of America
2007	"Top Physician" – Consumers' Research Council of America
2003	Fellow – American College of Epidemiology
2003	Katherine McCormick Travel Award
2003	BIRCWH (Building Interdisciplinary Research Careers in Women's Health) Scholar. NIH Career Development Award (K12)
2002	Associate Fellow - American Heart Association Council on Epidemiology and Prevention
2001	American Heart Association 27th Ten-Day Seminar on the Epidemiology and Prevention of Heart Disease – Fellow
2000	Individual NIH National Research Service Award (F-32) – A three-year award from The National Heart, Lung, and Blood Institute

C. Contributions to Science

1. Diversity in research and clinical trials is central to my work in cardiometabolic diseases and minority health. I have contributed significantly to the literature on diverse population differences in cardiovascular disease risk factors. These studies show that: 1) Asian Americans have higher levels of cardiovascular disease risk factors (e.g. type II diabetes) at lower levels of obesity compared to non-Hispanic White populations; 2) dyslipidemia profiles differ by specific racial/ethnic groups, with more insulin resistance in racial/ethnic minorities; 3) diverse populations are more likely to have diabetic kidney disease with

proteinuria, which is associated with greater cardiovascular risk. This body of work directs further research in the different profiles of cardio metabolic diseases among diverse populations and informs clinical practice on providing quality health care for all diverse populations.

a. **Palaniappan LP**, Wong EC, Shin JJ, Fortmann SP, Lauderdale DS. Asian Americans have greater prevalence of metabolic syndrome despite lower body mass index. Int J of Obes (London). 2010 Mar; 35(3):393-400. PMID: 20680014; PMCID: PMC2989340.
b. Narayan KM, Aviles-Santa L, Oza-Frank R, Pandey M, Curb JD, McNeely M, Araneta MR, **Palaniappan LP**, Rajpathak S, Barrett-Connor E. Report of a National Heart, Lung, And Blood Institute Workshop: Heterogeneity in Cardio-metabolic Risk in Asian Americans in the United States. Opportunities for Research. Journal of American College of Cardiology. 2010; 55(10):966973. PMID: 20202512.
c. Bhalla V, Zhao B, Azar KM, Wang EJ, Choi S, Wong EC, Fortmann SP, **Palaniappan LP**. Racial/Ethnic Differences in the Prevalence of Proteinuric and Nonproteinuric Diabetic Kidney Disease. Diabetes Care. 2013 May;36(5):1215-21. doi: 10.2337/dc12-0951. PMID: 23238659; PMCID: PMC3631839.
d. Frank AT, Zhao B, Jose PO, Azar KM, Fortmann SP, **Palaniappan LP**. Racial/ethnic differences in dyslipidemia patterns. Circulation. 2014 Feb 4;129(5):570-9. doi: 10.1161/CIRCULATIONAHA.113.005757. PMID: 24192801; PMCID: PMC4212818.

2. Treatment guidelines for chronic disease and risk factors are currently limited in availability and scope. As lifestyle and contextual factors greatly impact chronic disease risk, I have conducted research, both qualitative and quantitative, on evidence-based treatments and recommendations that health care organizations and physicians can carry into their practice. Current studies include examining the clinical effectiveness of structured physical activity programs for diabetes management (Initiate and Maintain Physical Activity in Clinics – IMPACT study – R18 DK096394), as well as optimal exercise regimens (Strength Training Regimen for Normal Weight Diabetics – STRONG-D – R01 DK081371).
    a. Kobayashi Y, Long J, Dan S, Johannsen NM, Talamoa R, Raghuram S, Chung S, Kent K, Basina M, Lamendola C, Haddad F, Leonard MB, Church TS, **Palaniappan L**. Strength training is more effective than aerobic exercise for improving glycaemic control and body composition in people with normal0weight type 2 diabetes: a randomized controlled trial. Diabetologia. 2023 Oct;66(10):18971907. dio:10.1007/s00125-023-05958-9. Epub 2023 Jul 26. PMID: 37493759; PMCID: PMC10527535.
    b. Mukherji AB, Lu D, Qin F, Hedlin H, Johannsen NM, Chung S, Kobayashi Y, Haddad F, Lamendola C, Basina M, Talamoa R, Myers J, **Palaniappan L**. Effectiveness of a Community-Based Structured Physical Activity Program for Adults With Type 2 Diabetes: A Randomized Clinical Trial. JAMA Netw Open. 2022 Dec 1;5(12):e2247858. doi: 10.1001/jamanetworkopen.2022.47858. PMID: 36542382; PMCID: PMC9857601.
    c. Selamet Tierney ES, **Palaniappan L**, Leonard M, Long J, Myers J, Dávila T, Lui MC, Kogan F, Olson I, Punn R, Desai M, Schneider LM, Wang CH, Cooke JP, Bernstein D. Design and rationale of re-energize fontan: Randomized exercise intervention designed to maximize fitness in fontan patients. Am Heart J. 2023 May; 259:68-78. doi: 10.1016/j.ahj.2023.02.006. Epub 2023 Feb 14. PMID: 36796574; PMCID: PMC10085061.
    d. Block G, Azar KM, Romanelli RJ, Block TJ, Hopkins D, Carpenter HA, Dolginsky MS, Hudes ML, **Palaniappan LP**, Block CH. Diabetes Prevention and Weight Loss with a Fully Automated Behavioral Intervention by Email, Web, and Mobile Phone: A Randomized Controlled Trial Among Persons with Prediabetes. J Med Internet Res. 2015 Oct 23;17(10):e240. doi: 10.2196/jmir.4897. PMID: 26499966; PMCID: PMC4642405.

3. A major portion of my current work strives to understand and explore best practices to implement genetic and pharmacogenetic testing in primary care practices in the United States. Due to the increase of direct to consumer genetic testing, there are significant shifts in the landscape between patients and providers. These publications highlight the limitations of current models and suggest novel approaches to include genetic testing in primary care using evidence based methods in the future.
    a. David SP**, Palaniappan L.** Clinical and Personal Utility of Genetic Risk Testing. Am Fam Physician. 2018;97(9):600-602. PMID: 29763257

b. Puryear L, Downs N, Nevedal A, Lewis ET, Ormond KE, Bregendahl M, Suarez CJ, David SP, Charlap S, Chu I, Asch SM, Pakdaman N, Chang S, Cullen MR, **Palaniappan L.** Patient and provider perspectives on the development of personalized medicine: a mixed-methods approach. J Community Genet. 2018;9(3):283-291. doi:10.1007/s12687-017-0349-x. PMID: 29280052; PMCID: PMC6002302
c. Delaney SK, Hultner ML, Jacob HJ, Ledbetter DH, McCarthy JJ, Ball M, Beckman KB, Belmont JW, Bloss CS, Christman MF, Cosgrove A, Damiani SA, Danis T, Delledonne M, Dougherty MJ, Dudley JT, Faucett WA, Friedman JR, Haase DH, Hays TS, Heilsberg S, Huber J, Kaminsky L, Ledbetter N, Lee WH, Levin E, Libiger O, Linderman M, Love RL, Magnus DC, Martland A, McClure SL, Megill SE, Messier H, Nussbaum RL, **Palaniappan L**, Patay BA, Popovich BW, Quackenbush J, Savant MJ, Su MM, Terry SF, Tucker S, Wong WT, Green RC. Toward clinical genomics in everyday medicine: perspectives and recommendations. Expert Rev Mol Diagn. 2016;16(5):521-532. doi:10.1586/14737159.2016.1146593. PMID: 26810587; PMCID: PMC4841021.
d. Lo C, Nguyen S, Yang C, Witt L, Wen A, Liao TV, Nguyen J, Lin B, Altman RB, **Palaniappan L.** Pharmacogenomics in Asian Subpopulations and Impacts on Commonly Prescribed Medications [published online ahead of print, 2020 Feb 26]. Clin Transl Sci. 2020;10.1111/cts.12771. doi:10.1111/cts.12771. PMID: 32100936; PMCID: PMC7485947.

Complete List of Published Work in MyBibliography:
http://www.ncbi.nlm.nih.gov/sites/myncbi/latha.palaniappan.1/bibliography/40472731/public/?sort=date&direction=ascending