BIOGRAPHICAL SKETCH

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NAME: Stefanick, Marcia L.

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

POSITION TITLE: Professor of Medicine and Professor of Obstetrics & Gynecology

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 Pennsylvania, Philadelphia, PA	B.A.	05/1974	Biology
Stanford University, Stanford, CA	Ph.D.	06/1982	Physiology
Stanford Center for Research in Disease Prevention, Stanford University, Stanford, CA	Postdoctoral Fellow	09/1983-86	Cardiovascular Disease Prevention (NHLBI)

A. Personal Statement

I am Professor of Medicine at the Stanford Prevention Research Center (SPRC), Professor of Obstetrics & Gynecology, and *by courtesy*, Professor of Epidemiology and Population Health. As founding Director of the Stanford Women's Health and Sex Differences in Medicine (WHSDM, "wisdom") Center, I lead the WHSDM Seed Grant program. I am Co-leader of the Population Science Program of the Stanford Cancer Institute and a member of the Stanford Cardiovascular Institute Educational Committee. I chair the Department of Medicine (DOM) Appointment and Promotions Committee and am a DOM representative of the School of Medicine (SoM) Faculty Senate. I also chair the Stanford University C-10 (Committee of 10, revising the Honor Code, Fundamental Standard and Judicial Process), and am a member of the University Committee on Research. I have been PI of the Western Regional Center of the Women's Health Initiative (WHI) Extension Study since 2010 (funded to 2027), having been the PI of Stanford's WHI Clinical Center (1994-2010) for the large WHI Hormone and Diet Modification (and Calcium/Vitamin D) randomized, controlled Trials and Observational Study, Chair of the WHI Steering/Executive Committees (1998-2011), and PI of many WHI ancillary studies, including the Objective Physical Activity for Cardiovascular Health study and I currently chair the WHI CV Scientific Interest Group (SIG) and co-chair the PA/Body Composition SIG. I am also PI of the WHI Strong & Healthy (*WHISH*) pragmatic physical activity (PA) trial, which randomly assigned ~49,000 WHI participants (aged 68-99 years in 2015) to a PA intervention or "usual activity" comparison, with cardiovascular events as the primary outcome over 8 years of follow-up, and a co-investigator of two *WHISH* ancillary studies (one on atrial fibrillation; PI, Marco Perez), and the Effects of Preeclampsia on Cardiovascular Health (EPOCH) study (PIs, Mark Hlatky and Virginia Winn), which aims to identify non-traditional CV risk factors of preeclampsia during pregnancy, 6 months and ≥ 2 years postpartum up to menopause, and at older ages. I am Stanford's PI of the Osteoporotic Fractures in Men Study (MrOS), 2001-2025, and PI of several MrOS ancillary studies, e.g. MrOS Sleep Study, involving in-home polysomnography, and a creatine dilution study of sarcopenia. I was Stanford's PI of the multi-center NHLBI Postmenopausal Estrogen-progestin Interventions (PEPI) trial, Co-PI of the Heart and Estrogen-progestin Replacement Study (HERS) and PI of the NCI Women's Healthy Eating and Living (WHEL) trial of a plant-based diet for recurrence and new primaries in 3100 early stage breast cancer survivors. I direct many medical school and undergraduate courses on sex & gender in health and physiology, sexual diversity and function, sexual abuse, and health promotion over the lifecourse as well as courses for SPRC's Community Health and Prevention Research Masters program. I have mentored several K-awardees and other early career faculty, many postdoctoral fellows in SPRCs T32 Cardiovascular Disease Prevention training program and in T32 training programs in Nephrology, Endocrinology and the Cardiovascular Institute and advise many undergraduates. I was also Research Director of Stanford's 2002-2008 BIRCWH program.

1. **Stefanick ML**, Mackey S, Sheehan M, Ellsworth N, Haskell WL, Wood PD (1998). Effects of diet and exercise in men and postmenopausal women with low levels of HDL cholesterol and high levels of LDL cholesterol. *N Engl J Med*;339(1):12-20. PMID: 9647874

2. Manson JE, Greenland P, LaCroix AZ, **Stefanick ML**, Mouton CP, Oberman A, Perri MG, Sheps DS, Pettinger MB, Siscovick DS (2002). Walking compared with vigorous exercise for the prevention of cardiovascular events in women. *N Engl J Med*;347(10):716-25. PMID: 12213942
3. Rossouw JE, Anderson GL, Prentice RL, LaCroix AZ, Kooperberg C, **Stefanick ML**, Jackson RD, Beresford SA, Howard BV, Johnson KC, Kotchen JM, Ockene J. (2002) Risks and benefits of estrogen plus progestin in healthy postmenopausal women: principal results From the Women's Health Initiative randomized controlled trial. *JAMA*;288(3):321-33. PMID: 12117397
4. Manson JE, Chlebowski RT, **Stefanick ML**, *et al* (2013). Menopausal hormone therapy and health outcomes during the intervention and extended post-stopping phases of the Women's Health Initiative randomized trials *JAMA*. Oct 2;310(13):1353-68. - PubMed PMID: 24084921 PMCID: PMC3963523

B. Positions of Honor and Employment

Employment

1970-1974	Undergraduate work, Univ. of Penn.: German translator; Veterinary Research Assistant
1974-1975	Research Assistant, Oregon Regional Primate Research Center, Beaverton, OR
1975-1976	Research Assistant, Dept. of Physiology, Stanford University, Stanford, CA
1986-1987	Research Associate, Stanford Center for Research in Disease Prevention (SCRDP)
1988-1997	Senior Research Scientist, SCRDP, Dept. of Medicine, Stanford Univ., Stanford, CA
1997-2003	Associate Professor of Medicine, Stanford University, Stanford, CA
2003-present	Professor of Medicine (Stanford Prevention Research Center), Stanford Univ,
2003-present	Professor of Obstetrics and Gynecology, Stanford University

Other Experience and Professional Memberships and Honors

1976-1981	PHS-NRS Award - Training Grant in Systems Biology (GMO7181-02 thru-06)
1983-1986	Stanford Cardiovascular Disease Prevention Training Grant (T32 HL07034-09-12)
1987 (2001)	Fellow of the A.H.A. and Council on Arteriosclerosis; Thrombosis, and Vascular Biology
1998-2011	Chair, Women's Health Initiative (Steering &) Executive Committee(s) [elected by WHI PIs]
2009-2010	Iris F. Litt Faculty Fellowship, Clayman Institute of Gender Research
2012-present	Director, Stanford Women's Health and Sex Differences in Medicine (WHSDM) Center
2018-2019	Vice-Chair, Stanford University Faculty Senate
2019-2020	Iris F. Litt Faculty Fellowship, Clayman Institute of Gender Research

C. Contribution to Science

1. My early work consisted of a series of 1-2 year RCTs of overweight or high (CV) risk adults to determine independent and interactive effects of physical activity, diet, and weight loss on HDL and LDL cholesterol. Changes in diet composition (caloric restriction or dietary fat reduction) strongly influenced weight loss effects of diet, particularly in women; and, aerobic exercise prevented diet-induced HDL reduction.
   a. Wood P, **Stefanick ML**, Dreon D, Frey-Hewitt B, et al. (1988) Changes in plasma lipids and lipoproteins in overweight men during weight loss through dieting as compared with exercise. *N Engl J Med*;319 (18):1173-9. PMID: 3173455
   b. Wood PD, **Stefanick ML**, Williams PT, Haskell WL. (1991). The effects on plasma lipoproteins of a prudent weight-reducing diet, with or without exercise, in overweight men and women. *N Engl J Med*;325(7):461-6. PubMedID: 1852180
   c. Terry RB, **Stefanick ML**, Haskell WL, Wood PD. Contributions of regional adipose tissue depots to plasma lipoprotein concentrations in overweight men and women: possible protective effects of thigh fat. *Metabolism* 1991;40(7):733-40. PubMedID: 1870428
   d. King AC, Haskell WL, Young DR, Oka RK, **Stefanick ML**. Long-term effects of varying intensities and formats of physical activity on participation rates, fitness, and lipoproteins in men and women aged 50 to 65 years. *Circulation* 1995;91(10):2596-604. PMID: 7743622
2. A second line of research focused on effects of menopausal hormone therapy (MHT) on coronary heart disease, CHD, cognitive function CHD, and bone health in light of observational study evidence of lower CHD, dementia, and osteoporosis in MHT users vs non-users. WHI demonstrated no benefit to CHD (and early harm with combined estrogen-progestin therapy), adverse effects on dementia, but benefit to bone.
   a. Shumaker SA, Legault C, Kuller L, Rapp SR, Thal L, Lane DS, Fillit H, **Stefanick ML**, Hendrix SL, Lewis CE, Masaki K, Coker LH. Conjugated equine estrogens and incidence of probable dementia and mild

cognitive impairment in postmenopausal women: Women's Health Initiative Memory Study. *JAMA* 2004;291(24):2947-58. PMID: 15213206

b. Rossouw JE, Prentice RL, Manson JE, Wu L, Barad D, Barnabei VM, Ko M, LaCroix AZ, Margolis KL, **Stefanick ML**. Postmenopausal Hormone Therapy and Risk of Cardiovascular Disease by Age and Years Since Menopause. *JAMA* 2007; 297(13):1465-77. PMID: 17405972

c. Robbins J, Aragaki AK, Kooperberg C, Watts N, Wactawski-Wende J, Jackson RD, LeBoff MS, Lewis CE, Chen Z, **Stefanick ML**, Cauley J. Factors Associated With 5-Year Risk of Hip Fracture in Postmenopausal Women. *JAMA*. 2007 November 28, 2007;298(20):2389-98.

d. Manson JE, Chlebowski RT, **Stefanick ML**, et al. Menopausal hormone therapy and health outcomes during the intervention and extended poststopping phases of the Women's Health Initiative randomized trials *JAMA*. 2013 Oct 2;310(13):1353-68. PMID: 24084921

3. I have also focused on breast (and colorectal) cancer outcomes with diet and weight change in the ~8 year WHI Diet trial and the ~7-year WHEL plant-based diet trial in 3100 early stage breast cancer survivors.
   a. Howard BV, Manson JE, **Stefanick ML**, Beresford SA, Frank G, Jones B, Rodabough RJ, Snetselaar L, Thomson C, Tinker L, Vitolins M, Prentice R. Low-fat dietary pattern and weight change over 7 years: the Women's Health Initiative Dietary Modification trial. *JAMA* 2006;295(1):39-49. PMID: 1639121
   b. Pierce JP, Natarajan L, Caan BJ, Parker BA, Greenberg ER, Flatt SW, Rock CL, Kealey S, Al-Delaimy WK, Bardwell WA, Carlson RW, Emond JA, Faerber S, Gold EB, Hajek RA, Hollenbach K, Jones LA, Karanja N, Madlensky L, Marshall J, Newman VA, Ritenbaugh C, Thomson CA, Wasserman L, **Stefanick ML** (2007). Influence of a diet very high in vegetables, fruit, and fiber and low in fat on prognosis following treatment for breast cancer: the Women's Healthy Eating and Living (WHEL) randomized trial. *JAMA*; 298(3): 289-98. PMID: 17635889 PMCID: PMC2083253
   c. Thomson CA, McCullough ML, Wertheim BC, Chlebowski R, Martinez ME, **Stefanick ML**, Rohan TE, Manson JE, Tindle H, Ockene J, Vitolins M, Wactawski-Wende J, Sarto GE, Lane D, Neuhouser ML. (2014) Nutrition and physical activity cancer prevention guidelines, cancer risk, and mortality in the Women's Health Initiative. *Cancer Prev Res (Phila).* Jan; 7(1):42-53. - PubMed PMID:24403289 PMCID: PMC4090781
   d. Chlebowski RT, Luo J, Anderson GL, Barrington W, Reding K, Simon MS, Manson JE, Rohan TE, Wactawski-Wende J, Lane D, Strickler H, Mosaver-Rahmani Y, Freudenheim JL, Saquib N, **Stefanick ML**. Weight loss and breast cancer incidence in postmenopausal women. *Cancer*. 2019 Jan 15;125(2):205-212 [Epub 2018 Oct 8] PMID: 30294816

4. MHT effects on breast cancer outcomes has been another major focus, with strong evidence of increased risk with E+P but reduced risk with E-alone, and the relationship of weight loss to breast cancer incidence. More recently I have contributed to guidelines regarding treatment for women with genetic susceptibility.
   a. **Stefanick ML**, Anderson GL, Margolis KL, et al. (2006). Effects of conjugated equine estrogens on breast cancer and mammography screening in postmenopausal women with hysterectomy. *JAMA*;295(14):1647-57. PMID: 16609086
   b. Chlebowski RT, Kuller LH, Prentice RL, **Stefanick ML**, Manson JE, Gass M, et al. (2009) Breast Cancer after Use of Estrogen plus Progestin in Postmenopausal Women. *N Engl J Med*;360(6):573-87. PMID: 19196674 PMCID: PMC3963492
   c. Chlebowski RT, Anderson GL, Aragaki AK, Manson JE, **Stefanick ML**, *et al.* Associations of menopausal hormone therapy with breast cancer and mortality during long-term follow-up of the Women's Health Initiative randomized clinical trials *JAMA* 2020 Jul 28;324(4):369-380. PMID: 32721007
   d. Kurian AW, Bernhisel R, Larson K, Caswell-Jin JL, Shadyab AH, Ochs-Balcom H, **Stefanick ML.** Prevalence of Pathogenic Variants in Cancer Susceptibility Genes Among Women With Postmenopausal Breast Cancer. *JAMA.* 2020 Mar 10;323(10):995-997. PMID:32154851 PMCID:PMC7064876 [Available on 2020-09-10]

5. The relationship of physical activity and physical function to body composition and chronic disease prevention in aging adults and those with chronic disease has continued to be a major research focus, including DXA measurements over decades in both older men in the MrOS and older women in WHI.
   a. Sims ST, Kubo J, Desai M, Bea J, Beasley JM, Manson JM, Allison M, Sequin RA, Chen Z, Michael YL, Sullivan SD, Beresford S, **Stefanick ML**. (2013) Changes in physical activity and body composition in postmenopausal women over time. *Med Sci Sports Exerc*; 45(8):1486-92. [Epub ahead of print Feb 22] PMID: 23439422 PMCID: PMC3715578

b. **Stefanick ML,** Brunner RL, Leng XI, PhD[3], Limacher MC, Bird CE, Garcia DO, Hogan PE, Mackey RH, Johnson KC, LaMonte MJ, LaCroix A, Robinson JG, Seguin RA, Tindle HA, Wassertheil-Smoller S. The Relationship of Cardiovascular Disease to Physical Functioning in Women surviving to age 80 and over in the Women's Health Initiative J *Gerontology: Medical Sciences* 2016 Mar, 71 Suppl 1:S42-53. PMID: 26858324

c. Laddu DR, Wertheim BC, Garcia DO, Woods NF, LaMonte MJ, Chen B, Anton-Culver H, Zaslavsky O, Cauley JA, Chlebowski R, Manson JE, Thomson CA, **Stefanick ML**. 36-Item Short Form Survey (SF-36) Versus Gait Speed As Predictor of Preclinical Mobility Disability in Older Women: The Women's Health Initiative. *J Am Geriatr Soc.* 2018 Feb 10. PMID: 29427503

d. Follis S, Cook A, Bea JW, Going SB, Laddu D, Cauley JA, Shadyab AH, **Stefanick ML**, Chen Z. Association between Sarcopenic Obesity and Falls in a Multiethnic Cohort of Postmenopausal Women. *J Am Geriatr Soc*. 2018 Dec;66(12):2314-2320 PMID: 30375641 PMCID: PMC6289680

D. Additional Information: Research Support and/or Scholastic Performance

Complete List of Published Work in MyBibliography:
http://www.ncbi.nlm.nih.gov/sites/myncbi/marcia.stefanick.1/bibliography/47580354/public/?sort=date&direction=ascending

Ongoing Research Support

1R61HL151885-01 (Stefanick, multi-PI***)** 09/15/2020-08/31/2024
NIH/NHLBI
Physical Activity to Improve CV Health in Women: A Pragmatic Trial CCC-Lead
Stanford is the physical activity (PA) intervention site of the WHI Strong & Healthy (*WHISH)* Trial testing the hypothesis that a centrally-delivered, easily scalable DHHS-based intervention designed to increase physical activity and reduce sedentary behavior will reduce major cardiovascular events and other adverse health outcomes, including cancer, in a multi-ethnic cohort of 49,000 older women (ages 68-99 years in 2015) over 8 years of follow-up. [The first 5 years was funded as a U-01 (per below). This R61 will be replaced by a R33]
Role: Multi-PI (*with Kooperberg, FHCRC; LaCroix, UCSD)

75N92021D00004/TO75N92021F00001(Stefanick) 10/15/20-10/14/2025
NIH/NHLBI
Women's Health Initiative (WHI) – Regional Center (RC)
As the Western Regional Center (WRC) of the WHI Extension Study, Stanford is continuing to follow women enrolled in the WHI clinical trials and observational study (1994-2010) who consented to extended follow-up from 2010 on. The WRC plays a major role in facilitating scientific activities related to cardiovascular health and physical activity/body composition, advancing women's aging research, and training junior investigators.
Role: PI, WHI Western Regional Center

3P30CA124435-12S3 (Artandi) 06/04/2007-05/31/2022
NIH/NCI/Stanford University Cancer Center
The Stanford Cancer Institute builds on institutional strengths to foster interdisciplinary collaborations amongst cancer researchers throughout Stanford University and provide resources to support innovative research. Stefanick focuses on promoting high-impact lifestyle intervention research to prevent cancer.
Role: Population Sciences Program co-leader

5R01HL13639004 (Perez) 04/1/2017-03/31/2022
NIH/NHLBI
"The WHI Strong and Healthy SilenT Atrial Fibrillation Recording Study (WHISH STAR)"
The primary goal is to measure the effect of the *WHI Strong & Healthy (WHISH)* trial physical activity intervention on clinical and asymptomatic forms of atrial fibrillation, using loop recorders.
Role: Co-Investigator. Helped designed the project (will help analyze and interpret results of the study).

5R01HL139844-03 (Hlatky) 09/01/2018-08/31/2022
NIH/NHLBI
Preeclampsia to Cardiovascular Disease: Life-Course Analysis of Biomarkers and Risk
The major goal of this study is to define the mediators of increased cardiovascular risk among women who developed preeclampsia during pregnancy (EPOCH), with a lifecourse approach focusing on 1) pregnant and 6-month postpartum women; 2) 2 or more years after pregnancy up to menopause; and, 3) older women.

Role: Co-Investigator. Helped designed the project (will help analyze and interpret results of the study).

1R01AG066671-01 (Cawthon) 09/30/2020 to 05/31/2025
NIH/California Pacific Medical Center Research Institute (CPMCRI)
Long term fracture risk and change in peripheral bone in the oldest old men: The MrOS study
The overall goal of MrOS is to understand long term musculoskeletal changes and fracture risk in older men by continuing to follow an initial cohort of 5995 men aged ≥65 years (in 2001) with triannual questionnaires and to collect documentation to adjudicate newly reported fractures and deaths. The Stanford MrOS site will conduct a clinic Visit #5 to collect blood and data from bone and body composition and physical function assessments.
Role: Principal Investigator of Stanford (Palo Alto) MrOS site, subcontract PI

Completed Research Support (last 3 years)

HHSN268201100003C (Stefanick) 10/01/10-10/14/20
NIH/NHLBI
Women's Health Initiative Extension 2010-2015/2015-2020
Stanford is the Western Regional Center (WRC) of the Women's Health Initiative (WHI) Extension Study, which has continued to follow participants of the WHI Clinical Trials (CT: hormone therapy; diet modification; and calcium/vitamin D) and Observational Study, (OS), (1993-2005), who consented to extended follow-up from 2010 on, with full outcome ascertainment of former HT trial and all African American and Hispanic CT and OS participants and cancer outcomes in all others.
Role: PI, Western Regional Center WHI Extension Study

5U01HL122280-05 (Stefanick) 02/09/2015-01/31/2021
NIH/NHLBI
Physical Activity to Improve CV Health in Women: A Pragmatic Trial CCC-Lead
Stanford developed and delivered a DHHS-based physical activity (PA) intervention for the WHI Strong & Healthy (*WHISH)* Trial from 2015 through 2021 when funding was renewed for an additional 4 years.
Role: PI, *WHISH* Clinical Coordinating Center

Stanford Project SPO# 124472 (Stefanick) 07/12/2016-05/31/2020 Transaction #637640 Mars Incorporated
Brigham and Women's Hospital
Randomized trial of cocoa flavanols and multivitamins in the reduction of cardiovascular disease and cancer. The WRC WHI site obtained medical records to adjudicate health outcomes for WHI-COSMOS participants.
Role: Western Regional Center WHI Extension Study PI

5U01AG042143-16 (Stefanick) 09/30/1999- 04/30/2020
NIH/NIAMS
Osteoporotic Fractures in Men Study (MrOS)
The Stanford MrOS site continued to follow active survivors among 995 men enrolled at the Palo Alto MrOS site at ages ≥ 65 yrs at baseline (2000-2002) to determine the relationships of bone and body composition (by DEXA) and osteoporotic fractures, and lifestyle, e.g. physical activity, and other health-related factors.
Role: PI, Stanford (Palo Alto) MrOS Clinical Center

1R56AG061085-01 (Cawthon) 09/01/2019-08/31/2020
National Institutes of Health/California Pacific Medical Center Research Institute
Long-Term Fracture Risk in Older Men: the MrOS Study
The Stanford MrOS site continued to follow active survivors among 995 men enrolled at the Palo Alto MrOS site at ages ≥ 65 yrs at baseline (2000-2002) with triannual questionnaires, collecting documentation required for central adjudication of all newly reported fractures and deaths, to achieve original MrOS goals (per above).

1R01HL130591-01 (Eaton) 08/01/2016-03/31/2021
NIH/Brown University
WHISH 2 Prevent Heart Failure (HF) evaluates the effect of the *WHISH* physical activity intervention on incident HF and HF burden (all HF hospitalizations and CVD death in women with antecedent HF) and does dose-finding analyses. The WRC WHI site is responsible for obtaining medical records for WRC HF reports.
Role: Western Regional Center WHI Extension Study PI