## BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

| NAME | POSITION TITLE |
|---|---|
| Gardner, Christopher D. | Associate Professor of Medicine (Research) |
| eRA COMMONS USER NAME<br>gardner.christopher | |

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)*

| INSTITUTION AND LOCATION | DEGREE *(if applicable)* | YEAR(s) | FIELD OF STUDY |
|---|---|---|---|
| Colgate University, Hamilton, NY | B.A. | 1977-1981 | Philosophy |
| University of California, Berkeley | Ph.D. | 1989-1993 | Nutrition Science |
| Stanford University, California | Post. Doc. | 1993-1997 | CVD Epidemiology |

### A. Positions and Honors

**Positions**

1997-1999 Research Associate, Department of Medicine, Stanford University
1999-2001 Assistant Professor, Dept of Epidemiology and Prevention, UC Davis
2001-2007 Assistant Professor, Department of Medicine, Stanford University
2007-present Associate Professor, Department of Medicine, Stanford University

**Honors/Awards/Fellowships**

1988 **University of California Regents Fellowship**
1989 **Outstanding Teaching Assistant**, Department of Nutritional Sciences
1994 **AHA Fellow**, 20th U.S. 10-day Seminar on Epidemiology & Prevention of CVD
1995-1997 American Heart Association **Postdoctoral Training Grant Recipient**
2005 **Outstanding Teacher, SPRC, Department of Medicine**

### B. Peer-reviewed publications (in chronological order).

1. **Gardner CD**, Winkleby MA, Viteri FE. Dietary Intake Patterns and Acculturation Levels of Hispanic Immigrant Men: A Pilot Study. *Hispanic Journal of Behav Sciences,* 1995;17:347-361.
2. **Gardner CD**, Kraemer HC. Monounsaturated versus Polyunsaturated Fat Intake and Serum Lipids: A Meta-Analysis. *Arteriosclerosis Thrombosis and Vascular Biology*, 1995;15:1917-1927.
3. Winkleby MA, **Gardner CD**, Taylor CB. The influence of gender and socioeconomic factors on Hispanic/White difference in body mass index *Prev Med*, 1996;25:203-211.
4. **Gardner CD**, Fortmann SP, Krauss RM. Association of small low-density lipoprotein particles with the incidence of coronary artery disease in men and women. *JAMA*,1996;276:875-881.
5. Kraemer HC, **Gardner CD**, Brooks JO, Yesavage JA. Inclusionist versus exclusionist viewpoints in meta-analysis: Excluding under-powered studies. *Psychological Methods*,1998;3:23-31.
6. Tham DM, **Gardner CD**, Haskell WL. Clinical review 97: Potential health benefits of dietary phytoestrogens: a review of the clinical, epidemiological and mechanistic evidence. *J Clin Endocrin Metab*, 1998;83:2223-2235.
7. **Gardner CD**, Winkleby MA, Fortmann SP. Population Frequency Distribution of Non-High Density Lipoprotein Cholesterol and Associations with Gender, Age, Ethnicity and education: Third National Health and Nutrition Examination Survey (NHANESIII, 1998-1994) *Am J Cardiol*, 2000;86:299-304.
8. **Gardner CD**, Tribble D, Rohm-Young D, Ahn DK, Fortmann SP. Population frequency distributions of HDL-HDL2- and HDL3-cholesterol and apolipoproteins A-I and B in healthy men and women and associations with age, gender, hormonal status, and sex hormone use: The Stanford Five City Project. *Prev Med*, 2000;31:335-345.

9. **Gardner CD**, Tribble D, Rohm-Young D, Ahn DK, Fortmann SP. Associations of HDL, HDL2, and HDL3 cholesterol and apolipoproteins A-I and B with lifestyle factors in healthy women and men: The Stanford Five Project. *Prev Med*, 2000;31:346-356.
10. **Gardner CD**, Chatterjee L, Carlson J. Effect of garlic supplementation on plasma cholesterol in hypercholesterolemic adults. *Atherosclerosis* 2001;154:213-220.
11. **Gardner CD**, Newell KA, Haskell W. Effect of Phytoestrogen supplementation on plasma cholesterol in hypercholesterolemic, postmenopausal women. *Am J Clin Nutr,*2001;73:728-35.
12. **Gardner,CD.** The role of plant-based diets in the treatment of prevention of coronary artery disease. *Coronary Artery Disease* 2001;12:553-9.
13. Ackermann RT, Mulrow CD, Ramirez G, **Gardner CD**, Morbidoni L, Lawrence VA. Garlic Shows Promise For Improving Some Cardiovascular Risk Factors. *Arch Intern Med*, 2001;161:813-24.
14. Messina M, **Gardner CD**, Barnes S. Gaining insight into the health effects of soy but a long way still to go: Commentary on the Fourth International Symposium on the Role of Soy in Preventing and Treating Chronic Disease. *J Nutr* 2002;132:547-551.
15. Kris-Etherton P, Etherton T, Carlson J, **Gardner CD**. Recent discoveries in inclusive food-based approaches and dietary patters for reduction in risk for cardiovascular disease. *Curr Opin Lipidol* 2002;13:397-407.
16. **Gardner CD**, Messina M, Lawson LD, Farquhar JW. Soy, garlic, and ginkgo biloba: their potential role in cardiovascular disease prevention and treatment. *Curr Atheroscler Rep*. 2003, Nov;5(6):468-475.
17. Bravata DM, Sanders S, Huang J, Krumholz HM, Olkin I, **Gardner CD**, Bravata DM. Safety and Efficacy of Low-Carbohydrate Diets: A Systematic Review. *JAMA* 2003;289:1837-50.
18. **Gardner CD**, Coulston A, Chatterjee L, Rigby A, Spiller G, Farquhar JW. Effects of a plant-based diet on plasma lipids in hypercholesterolemic adults: A Randomized Trial. *Ann Int Med* 2005;142:725-33.
19. Lawson LD, **Gardner CD**. Composition, stability, and bioavailability of garlic products being used in a clinical trial. *J Agric Food Chem* 2005;10:53 (16):6254-61.
20. Stookey JD, Burg M, Sellmeyer DE, Greenleaf JE, Arieff A, Van Hove L, **Gardner CD**, King JC. A proposed method for assessing plasma hypertonicity in vivo. *Eur J Clin Nutr* 2007;61:143-6.
21. **Gardner CD**, Lawson LD, Block E, Chatterjee LM, Kiazand A, Balise RR, Kraemer HC. The effect of raw garlic vs. commercial garlic supplements on plasma lipids in moderately hypercholesterolemic adults: A randomized clinical trial. *Arch Int Med,* 2007;167:346-353.
22. **Gardner CD**, Kiazand A, Alhassan S, Kim S, Stafford RS, Balise RR, Kraemer, King AC. Comparison of the Atkins, Zone , Ornish and LEARN diets for change in weight and related risk factors among overweight premenopausal women: A randomized clinical trial. *JAMA* 2007;297:969-997.
23. **Gardner CD**, Zehnder JL, Rigby AJ, Oliveira BM, Nicholus JR, Lal D, Farquhar JW. Effect of Ginkgo biloba (EGb 761) and aspirin on platelet aggregation and platelet function analysis among older adults at risk of cardiovascular disease: A randomized clinical trial. *Blood Coagulation and Fibrinolysis.* 2007;18:787-93.
24. **Gardner CD**, Messina M, Kiazand A, Morris JL, Varady AN, Franke AA. Effect of two types of soy milk and dairy milk on plasma lipids in hypercholesterolemic adults: A randomized trial. *J Am Coll Nutr* 2007;26:669-77.
25. Stookey JD, Constant F, **Gardner CD**, Popkin BM. Replacing sweetened caloric beverages with drinking water is associated with lower energy intake. *Obesity 2007;*15:3013-22.
26. Alhassan S, Kiazand A, Balise RR, King AC, Reaven GM, **Gardner CD**. Metabolic syndrome: Do definitions identify similar individuals among overweight premenopausal women? *Metab* 2008;57:49-56.
27. King AC, Ahn DF, Oliveira B, Atienza A, Castro C**, Gardner CD**. Promoting moderate-intensity physical activity through hand-held computer technology. *Am J Prev Med* 2008;34:138-42.
28. Alhassan S, Kim S, Bersamin A, King AC**, Gardner CD.** Dietary adherence and weight loss success among overweight women: Results from the A TO Z weight loss study. *Intl J* O*besity* 2008;57:49-56.
29. **Gardner CD**, Taylor-Piliae R, Kiazand A, Nicholus J, Rigby AJ, Farquhar JW. Effect of Ginkgo biloba (EGb 761) on treadmill walking time among adults with peripheral artery disease: A randomized clinical trial. *J Cardiopulmonary Rehab Prev* 2008;28:258-65.
30. Atienza AA, King AC, Oliveira B, Castro C, Ahn D**, Gardner CD.** Modifying dietary patterns using hand-held computer technology *Am J Prev Med, 2008;*34:514-8.
31. **Gardner CD**, Chatterjee LM, Oliveira BM, Franke AA. Effects of isoflavone supplements vs. soy foods on blood concentrations of genistein and daidzein in adults. *J Nutr Biochem,* 2009;20:227-34.

32. Stookey JD, Constant F, Popkin BM, **Gardner CD**. Drinking water is associated with weight loss. *Obesity* 2008;16:2481-8.
33. Swami S, Krishnan AV, Moreno J, Bhattacharyya RS, **Gardner CD**, Brooks JD, Peehl DM, Feldman D. Inhibition of prostaglandin synthesis and actions by genistein in human prostate cancer cells and by soy isoflavones in prostate cancer patients. *Int J Cancer* 2009;124:2050-9.
34. **Gardner CD**, Oelrich B, Liu J, Feldman D, Franke AA, Brooks JD. Prostastic soy isoflavone concentrations exceed serum levels after dietary supplementation. *Prostate* 2009;69:719-26.

**C. Research Support**.

**ONGOING PROJECTS**

R21 AT003245 Gardner (PI) 9/1/06 – 8/31/09
NIH/NCCAM
Dietary Antioxidants and Markers of Atherosclerosis
The major goal of this project is to compare antioxidant supplements to increased intake of foods naturally rich in antioxidants for their effects on markers of inflammation, such as C- reactive protein. The doses used will be non-pharmacological. The study population will be adults at increased risk for cardiovascular disease.
Role: Principal Investigator

R21 AT003465 Gardner (PI) 9/1/06 – 8/31/09
NIH/NCCAM
ALA & EPA/DHA (w-3) Effects on Inflammatory Markers in Insulin Resistant Adults
The major goal of this project is to test the effect of plant vs. marine sources of omega three fatty acids on inflammatory markers among a population of insulin resistant adults. The design will include two doses of each type of omega-3 fatty acids: Low dose will be an amount that could be realistically achieved from dietary sources by making selective food choices, and the High dose will be an amount that could not realistically be achieved by food sources alone (i.e., would have to be obtained from supplement sources).
Role: Principal Investigator

R21 HL092268 Gardner (PI) 2/1/09 – 1/31/11
NIH/NCCAM
Adding Sleep Intervention to Traditional Diet & Exercise Approach to Weight Loss
The major goal of this project is to determine whether adding a sleep intervention to a standard weight loss program of diet and exercise will improve weight loss and weight loss maintenance through improved adherence to diet and exercise.
Role: Principal Investigator

Atkins Foundation Gardner (PI) 5/1/07 – 7/30/09
Novel Approach to Maximizing Adherence to Low Carbohydrate Diets
We will identify a set of supermarkets and restaurants in a defined geographical area and generate daily and weekly menu plans with precise instructions for free-living participants to obtain these on their own at the designated sites. As a pilot project, a small number of overweight adults will be enrolled in a low-carbohydrate weight loss project to determine the feasibility for increasing adherence to dietary modifications.
Role: Principal Investigator

Nordic Naturals Inc. Gardner (PI) 12/15/08 – 7/30/09
Effect of Different Types of Fish Oil Supplements on Triglycerides in Hypertriglyceridemic Adults
The major goal of this project is to compare the effect of natural fish oil vs. an ethyl ester fish oil preparation on lowering triglyceride levels in hypertriglyceridemic adults.
Role: Principal Investigator

Stanford University Gardner (PI) 11/1/07 – 10/31/09
Increasing Minority Participation in Clinical Trials at Stanford

This two-stage project will explore approaches for increasing minority participation in clinical trials conducted at Stanford. The project will involve analysis of focus groups from completed studies as well as conducting focus groups in local areas with high concentrations of African-American and Latino populations.
Role: Principal Investigator

R01 HL094466 Jun Ma (PI) 04/01/09-01/31/14
PAMFRI via NIH-NHLBI
Can diet- & exercise-induced weight loss improve asthma control in obese adults?
The major goal of this 2-arm RCT is to investigate the effects of a state-of-the-art lifestyle weight loss intervention on asthma control among obese adults.
Role: Co-Investigator

**RECENTLY COMPLETED PROJECTS**

R01 Gardner (PI) 5/1/02-10/31/06
NIH/NCCAM
Effects of 3 Sources of Garlic on Plasma Cholesterol
The objective of this study was to determine the relative effect on plasma cholesterol concentrations of (1) fresh garlic, (2) a leading dried-powdered garlic commercial supplement, and (3) a leading aged-garlic extract commercial supplement among moderately hypercholesterolemic adults.
Role: Principal Investigator

R01 Gardner (PI) 7/1/00 – 10/31/06
NIH/NCCAM
Effects of Soy Isoflavones on the Prostate, Breast and Bone
The main purpose of this 5-year project was to study dietary isoflavones in relation to bone density and cancer. The effects of ingested soy isoflavones on markers of bone density were examined in postmenopausal women on and off hormones. Men scheduled for prostate surgery were randomized to receive isoflavones or placebo prior to their surgery in order to compare blood and prostate tissue levels of isoflavones.
Role: Principal Investigator

R21 Gardner (PI) 7/1/02-6/30/05
NIH/NCCAM via Community Foundation of Southeastern Michigan
Potential Benefits and Risks of Popular Weight Loss Diets
The objective of this study was to contrast the potential benefits and risks of 3 popular weight loss diets(Atkins diet, Zone diet and Ornish diet) with a more traditional approach of eating less and exercising more with an emphasis on behavior change among 311 premenopausal, overweight women (BMI 27-40).
Role: Principal Investigator

R01 Farquhar (PI) 10/1/00 – 9/30/05
NIH/NCCAM
An Extract of Ginkgo Biloba (EGb 761) and Vascular Function
The objective of this study was to determine if a highly standardized herbal extract of the leaves of the Ginkgo biloba tree, widely used in Europe for two decades, will benefit patients who have pain on walking due to narrowing of the arteries of the legs.
Co-Investigator/Study Director

Gift Funds Gardner (PI) 7/1/03-6/30/05
Effects of Two Types of Soy Milk vs. Cow's Milk on Plasma Cholesterol
The objective of this study was to determine if either of two different soy milk beverages, consumed three times/day for 1 month, will lower LDL-cholesterol concentrations among adults with screening LDL-cholesterol concentrations of 160-220 mg/dL who are not on medication, have no history of heart disease, and have a Framingham risk score of <10% over the next 10 years.
Role: Principal Investigator