

Biographical and Bibliographic Information

I. Personal Information

Name: Christopher David Gardner
Birth Date: July 13, 1959
Birth Place: Washington, D.C.
Citizenship: U.S.

II. Educational Background

1977–1981 Colgate University, B.A. (Philosophy)
1988–1993 University of California, Berkeley, Ph.D. (Nutrition Science)

III. Professional Appointments

Stanford University School of Medicine, Dept. of Medicine, Stanford, California

1993–1997 Postdoctoral Research Fellow in Cardiovascular Disease Epidemiology and Prevention, Stanford Prevention Research Center (NIH T32-HL007034 and the American Heart Association)
1997–1999 Research Associate, Stanford Prevention Research Center

University of California, Davis, Dept. of Epidemiology and Preventive Medicine

1999–2001 Assistant Professor
1999–2001 Director of Center for Advanced Studies in Nutrition and Social Marketing

Stanford University School of Medicine, Dept. of Medicine, Stanford, California

2001–2007 Assistant Professor, Stanford Prevention Research Center
2007– Associate Professor, Stanford Prevention Research Center

IV. Honors and Awards

1988 University of California Regents Fellowship
2005 Department of Medicine Teaching Award
2007 Member, Sigma Xi, The Scientific Research Society

V. Scholarly Publications

Peer reviewed journal articles, original research (28 total; 3 in press, 1 under review)

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. 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.
13. 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.
14. **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.
15. 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.
16. 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.
17. **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.
18. **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;297:969-77.
19. **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.

20. **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.
21. 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.
22. Alhassan S, Kiazand A, Balise RR, King AC, Reaven GM, **Gardner CD**. Metabolic syndrome: Do definitions identify similar individuals among overweight premenopausal women? *Metabolism* 2008;57:49-56.
23. 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.
24. 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 Obesity* 2008;57:49-56.
25. 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.
26. **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 Cardiopulm Rehabil Prev*. 2008;28:258-65.
27. **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.
28. Stookey JD, Constant F, Popkin BM, **Gardner CD**. Drinking water is associated with weight loss. *Obesity* 2008;16:2481-8.
29. 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.
30. **Gardner CD**, Oelrich B, Liu J, Feldman D, Franke AA, Brooks JD. Prostatic soy isoflavone concentrations exceed serum levels after dietary supplementation. *Prostate* 2009;69:719-26.

Other Peer-Review Articles (1)

1. **Gardner CD**, Block E, Lawson LD. Garlic in the treatment of hypercholesterolemia: Is it effective? *Clinical Nutrition Insight*. 2007;33:1-4. [Invited, peer-reviewed]

Non Peer reviewed journal articles, reviews, editorials, etc. (4)

1. **Gardner,CD**. The role of plant-based diets in the treatment of prevention of coronary artery disease. *Coronary Artery Disease* 2001;12:553-9.
2. 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. *Journal of Nutrition* 2002;132:547-551.
3. Kris-Etherton P, Etherton T, Carlson J, **Gardner CD**. Recent discoveries in inclusive food-based approaches and dietary patterns for reduction in risk for cardiovascular disease. *Curr Opin Lipidol* 2002;13:397-407.
4. **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.

Book Chapters (4)

1. **Gardner CD**, Spiller G, Bruce B. Coffee, caffeine and serum cholesterol, In: Spiller G, editor. Caffeine. New York: CRC Press, 1998. p. 301-324.
2. **Gardner CD**, Chatterjee LC, Carlson JJ. Effect of garlic on serum cholesterol levels. In: Bidlack WR, Omaye ST, Mesking MS, Topham DKW, editors. Phytochemicals as bioactive agents. Lancaster, PA: Technomics Publishing Co. Inc., 2000. p. 199-212.
3. **Gardner CD**. Nutrition, In: Berra K, Friedland G, Koch F, editors. Cardiac rehabilitation, New Haven CT: Yale University Press, 2002. p. 123-152.
4. **Gardner CD**. The emergence of a growing role for nutrition and plant-based diets in the treatment and prevention of cardiovascular disease. In: Williams MA, editor-in-chief. Guidelines for the American Association of Cardiovascular and Pulmonary Rehabilitation, 4th Edition. Champaign, IL: Human Kinetics, 2004. p. 21-30.

Special materials (editorials, letters, epitomes) (2)

1. **Gardner CD**, Stafford RS, King AC. Comparison of weight-loss diets – Reply. (*JAMA*, 2007;298:175).
2. **Gardner CD**, Lawson LD, Block E. Effects of Garlic on Cholesterol: Not Down But Not Out Either—Reply, *Arch Int Med* 2008;168:112-113.

Abstracts not published in other forms (4)

1. **Gardner CD**, Dixon LB, Winkleby MA. *Homocysteine Levels, Vitamin Intake and Dietary Supplement Use Among Black, Mexican-American and White U.S. Adults: the Third National Health and Nutrition Examination Surgery, (NHANES III, Phase 2, 1991-1994)* Presented at the American Heart Association Council on Epidemiology and Prevention, San Diego, California, March, 2000.
2. **Gardner CD**, Hagerty L. *Effect of Dietary Folate from Three Different Sources on Homocysteine Concentrations*. Presented at the American College of Nutrition, Las Vegas, 12-15 March, 2000. *J Am Coll Nutr*. 2000;19:685 (Abstract).
3. Kiazand A, **Gardner CD**, Fair JM, Mahboubia MH. *Dietary antioxidants did not influence flow-mediated vasodilatation in adults at risk of atherosclerosis*. March 2006, American Heart Association, the Council on Epidemiology and Prevention, and the Council on Nutrition, Physical Activity and Metabolism, Phoenix, AZ *Circulation* 2006;113:371 (abstract).
4. Kiazand A, **Gardner CD**, Fair JM, Mahboubia MH, *Dietary antioxidants did not influence flow-mediated vasodilation in adults at risk of atherosclerosis*. March 2006, American Heart Association, the Council on Epidemiology and Prevention, and the Council on Nutrition, Physical Activity and Metabolism, Phoenix, AZ *Circulation* 2006;113:371 (abstract).

VI. Editorial Service

A. Editorial board memberships

2008- Clinical Nutrition Insights

B. Other peer review activities – manuscript review

1. *Annals of Internal Medicine*

2. JAMA
3. Circulation
4. Archives of Internal Medicine
5. American Journal of Clinical Nutrition
6. European Journal of Clinical Nutrition
7. British Journal of Nutrition
8. Nutrition
9. Journal of the American College of Nutrition
10. Office of Dietary Supplements Annual Review (2003, 2005, 2006)
11. Obesity
12. Atherosclerosis
13. Journal of Women's Health
14. Clinica Chimica Acta
15. Endocrine Reviews
16. Medicine and Science in Sports and Exercise
17. American Journal of Medicine
18. Treatments in Endocrinology
19. Journal of Cardiopulmonary Rehabilitation
20. Stanford Office of Technology and Licensing

VII. Grants

A. Current Funding

R21 AT003245-01A2 (Christopher D. Gardner) 20%
 NIH-NCCAM
 10/1/2006 – 9/30/09

Role: Principal Investigator

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 MCP-1, TNF-alpha, IL-6, and sICAM-1. The doses used will be non-pharmacological. The study population will be adults at increased risk for cardiovascular disease.

R21 AT003465 (Christopher D. Gardner) 30%
 NIH-NCCAM
 11/1/2006 – 10/31/09

Role: Principal Investigator

ALA & EPA/DHA (ω -3) Effects On Inflammatory Markers in Insulin Resistant Adults

The major goal of this project is to test the effect of omega-3 fatty acids on inflammatory markers (MCP-1, TNF-alpha, IL-6, and sICAM-1) among a population of insulin resistant adults. The design will include two sources and two doses of omega-3 fatty acids. The sources will be alpha linolenic acid (plant source) and eicosapentaenoic and docosahexaenoic acid (marine source). The low doses of each type will be an amount that could be realistically achieved from dietary sources by making selective food choices. The high doses of each type will be triple the low dose, and an amount that could not realistically be achieved by food sources alone (i.e., would have to be obtained from supplement sources). In all cases the sources will be supplemental forms for this pilot/feasibility project.

Dr. Robert C. Atkins Foundation (Christopher Gardner) 10%
 3/1/07-2/28/10

Role: Principal Investigator

Effect of Diet Macronutrient Manipulation on Weight Loss

These funds have been awarded in order to support pilot work in the area of dietary macronutrient manipulation for the purpose of enhancing weight loss.

(Christopher Gardner) 3%
Stanford Center for Clinical and Translational Education and Research
9/1/07 – 8/31/09

Role: Principal Investigator

Improving Minority Recruitment For Randomized Clinical Trials Conducted At Stanford

This project involves three phases. The first is to review recent and current trials conducted at the Stanford Prevention Research Center and to evaluate various aspects of ongoing minority recruitment. The second phase will be a round of focus groups with recent minority participants. The first two phases will inform the third phase, which will be a second round of focus groups with minority participants from local communities who have never participated in a clinical trial at Stanford.

R01 HL70781 (Randall Stafford) 2%
NIH - NHLBI
04/01/03-03/31/09

Role: Advisory Board

Improving Coronary Prevention in a County Health System

The major goals of this study are to implement and enhance a case-management program in a high-risk population served by the county health care system of San Mateo County CA. The primary outcome measure will be change in aggregate CAD risk score.

B. Grant Applications Currently Under Review

(Score of 136, 5th percentile, June 2008 review – funding pending)

R21 HL092268 (Christopher D. Gardner) 35%
NIH - NHLBI

Adding Sleep Intervention to Traditional Diet & Exercise Approach to Weight Loss

The major goal of this project is to determine if the addition of an intervention designed to help adults improve their sleep habits will help with weight loss over 12 months. The target population for this pilot project is 30 overweight adults who have suboptimal sleep patterns. The treatment group will receive traditional diet and exercise advice and receive the sleep intervention. The control group will receive traditional diet and exercise advice and attention-matched staff contact.

(Score of 170, NCCAM does not provide a percentile ranking for these R21s, June 2008 review)

R21 AT004475 (Christopher D. Gardner) 25%
NIH - NCCAM

Effects of GSH +/- Arginine on Inflammatory Markers Among Adults with CVD Risk

This study will determine whether a liposomal glutathione supplement, with or without arginine, will have a beneficial effect on inflammatory markers (MCP-1, TNF-alpha, IL-6, and sICAM-1) in a population that is likely to have elevated levels of inflammatory markers. Ninety adults with elevated cardiovascular disease risk will be randomly assigned to Glutathione, Glutathione+Arginine, or Placebo, for 8 weeks.

R01 DK083548 (Christopher D. Gardner) 35%
NIH-NIDDK

Insulin Resistance: Moderator of Weight Loss Success for LowCarb vs LowFat Diets?

The major goal of this project is to test the effect of a low-carb vs. a low-fat diet on weight loss maintenance and related cardiovascular risk factors. This 18 month protocol involves 6 months of intensive weight loss instruction followed by a 12 month weight loss maintenance phase.

C. Prior Funding

- 1995 – 1997 **Principal Investigator**, American Heart Association Postdoctoral Fellowship Award; Advisor: John W. Farquhar
- 1997 – 1999 **Project Director:** *Effects of Plant-Based vs. Convenience Food-Based Low-Fat Diets on CVD Risk Factors*; National Heart, Lung, and Blood Institute, (NIH R01-HL57386-01; PI John W. Farquhar)
- 1997 – 1999 **Project Director:** *Effects of Isoflavones on Plasma Cholesterol in Hypercholesterolemic, Postmenopausal Women*; National Heart, Lung, and Blood Institute (NIH U24-AR43558-03; PI William L. Haskell)
- 1997 – 1999 **Principal Investigator:** *Effects of Garlic Supplementation on Plasma Cholesterol in Hypercholesterolemic Adults*; Nutrilite Inc, Division of Amway International
- 1998 – 2000 **Principal Investigator:** *Effects of Three Sources of Folate on Homocysteine Among Hyperhomocysteinemic Adults*; Nutrilite Inc, Division of Amway International
- 2001 – 2005 **Principal Investigator:** *Effects of Soy Isoflavones on the Prostate, Breast and Bone*; National Center for Complementary and Alternative Medicine (NIH R01 AT00486)
- 2001 – 2005 **Project Director:** *An Extract of Ginkgo Biloba (EGb 761) and Vascular Function*; National Center for Complementary and Alternative Medicine (NIH R01 AR00204; PI John W. Farquhar)
- 2002 – 2005 **Principal Investigator:** *Comparing Effects of 3 Sources of Garlic on Serum Lipids*; National Center for Complementary and Alternative Medicine (NIH R01 AT001108)
- 2002 – 2004 **Principal Investigator:** *Benefits and Risks of Popular Weight Loss Diets*; National Center for Complementary and Alternative Medicine (NIH R21 AT01098) (Note: this grant and the CFMSM grant listed next were combined after negotiation with both funding agencies and together supported the "A TO Z" study)
- 2002 – 2005 **Principal Investigator:** *Benefits and Risks of Alternative Weight Loss Strategies: A Clinical Trial*; Community Foundation for Southeastern Michigan
- 2002 – 2005 **Principal Investigator:** *Promotion of Healthful Nutritional and Physical Activity Practices using Handheld Computers*; (Stanford Office of Technology and Licensing)
- 2003 – 2005 **Principal Investigator:** *Milk Study: White Wave soy milk vs. 8th generation soy milk vs. cow's milk - effect on cholesterol among hypercholesterolemic adults*; (White Wave, Inc.)

D. Service as grant reviewer

- 2004 – 2008 Special emphasis panel for NCCAM/NIH
2004 NHLBI/NIH Program Project
2007 South African Medical Research Council

VIII. University Administrative Services

A. Committee Service

B. Leadership Roles

1994 – 2006 Nutrition Journal Club Coordinator, Stanford
1994 – 1996 Research Roundtable Coordinator, Stanford
1999 – 2000 Volunteer Clinical Faculty Coordinator, UC Davis
2002 – 2003 Human Subjects Review Panel, Stanford
2008 – Program of Medicine, Stanford Medical School, Nutrition Education Coordinator

IX. Service to Professional Organizations

A. Memberships

1994 – American Heart Associate Council on Epidemiology
1998 – 2002 Lipid Nurse Task Force
2000 – 2002 American Public Health Association
2000 – American Heart Association Council on Nutrition, Physical activity and Metabolism

X. Presentations

A. National and Regional Meetings (selected invited talks from past 5 years)

NIH/NCCAM: Bioactives and Cardiovascular Disease. Garlic, Ginkgo and Soy. Washington, DC, August, 2002. *Effect of Garlic Preparations on Cardiovascular Disease and its Risk Factors.*

Preventive Cardiovascular Nurses Association: 9th Annual Symposium: Emerging Issues in Cardiovascular Prevention. San Francisco, California, February, 2003. *Alternative therapies: Benefits and Hazards.*

American Association of Cardiovascular and Pulmonary Rehabilitation: Long Beach, California, 2004. *Battle of the Popular Diets: Is anyone winning (at losing?).* American Heart Association. New Orleans, 2004. *Nutritional Supplements for Cardiovascular Diseases.*

American Heart Association: National Meeting, New Orleans, November 2004. *Overview of Current Cardiovascular Supplements.*

Office of Dietary Supplements/NIH: Seminar Series. Bethesda, MD, December 7, 2005. *Effect of 3 Sources of Garlic on Plasma Lipids.*

Mayo Clinic: Putting Prevention Into Practice. The Mayo Clinic, Rochester, Minnesota. October 26-27, 2006. *Optimizing Dietary Strategies for Weight Loss and Risk Factors Control.*

Cleveland Clinic: Obesity Summit. The Cleveland Clinic, Cleveland, Ohio. September 27-29, 2007. *Dietary Interventions for Obesity Management.*

Mayo Clinic: Annual Nutrition Conference. San Francisco, California, November 8-9, 2007. *Health Benefits of a Plant-Based Diet, and Update on Dietary Supplements for Cardiovascular Disease.*

5th Annual Nutrition and Health Conference: Tempe, Arizona. April 14-16, 2008. *A Whole Food Approach to Optimal Nutrition.*

B. International Meetings

Korean Food and Technology Institute: International Soy Conference. Seoul, Korea. November, 2002. *Pathways to reduce cholesterol by soy/soy peptide.*