

**Section of Cardiovascular Research
Department of Medicine, Baylor College of Medicine
(1 July 2017–30 June 2018)**

A. Publications

1. Power MC, Rawlings A, Sharrett AR, Bandeen-Roche K, Coresh J, **Ballantyne CM**, Pokharel Y, Michos ED, Penman A, Alonso A, Knopman D, Mosley TH, Gottesman RF. Association of midlife lipids with 20-year cognitive change: a cohort study. *Alzheimers Dement* 2018;14:167–177.
2. Fashanu OE, Norby FL, Aguilar D, **Ballantyne CM**, **Hoogeveen RC**, Chen LY, Soliman EZ, Alonso A, Folsom AR. Galectin-3 and incidence of atrial fibrillation: the Atherosclerosis Risk in Communities (ARIC) study. *Am Heart J* 2017;192:19–25.
3. Navar AM, Wang TY, Li S, Robinson JG, Goldberg AC, **Virani S**, Roger VL, Wilson PWF, Elassal J, Lee LV, Peterson ED. Lipid management in contemporary community practice: Results from the Provider Assessment of Lipid Management (PALM) Registry. *Am Heart J* 2017;193:84–92.
4. Yong CM, Liu Y, Apruzzese P, Doros G, Cannon CP, Maddox TM, Gehi A, Hsu JC, Lubitz SA, **Virani S**, Turakhia MP; ACC PINNACLE Investigators. Association of insurance type with receipt of oral anticoagulation in insured patients with atrial fibrillation: a report from the American College of Cardiology NCDR PINNACLE registry. *Am Heart J* 2018;195:50–59.
5. Hess PL, Kennedy K, Cowherd M, **Virani SS**, Masoudi FA, Navar AM, Yeh RW, Ho PM, Maddox TM. Implications of the FDA approval of PCSK9 inhibitors and FOURIER results for contemporary cardiovascular practice: an NCDR Research to Practice (R2P) project. *Am Heart J* 2018;195:151–152.
6. Garg PK, Bartz TM, Norby FL, Jorgensen NW, McClelland RL, **Ballantyne CM**, Chen LY, Gottdiener JS, Greenland P, **Hoogeveen R**, Jenny NS, Kizer JR, Rosenson RS, Soliman EZ, Cushman M, Alonso A, Heckbert SR. Association of lipoprotein-associated for c oA nhsVPK,R0ion o358l 0 o.g.09f0ncationel 3-.0001 Tf28 0 TDoA nhsVo of D.s TD.62–6D.0011 T4

11. McCullough PA, **Ballantyne CM**, Sanganalmath SK, Langslet G, Baum SJ, Shah PK, Koren A, Mandel J, Davidson MH. Efficacy and safety of alirocumab in high-risk patients with clinical atherosclerotic cardiovascular disease and/or heterozygous familial hypercholesterolemia (from 5 placebo-controlled ODYSSEY trials). *Am J Cardiol* 2018;121:940–948.
12. Tibuakuu M, Kianoush S, DeFilippis AP, McEvoy JW, Zhao D, Guallar E, **Ballantyne CM, Hoogeveen RC**, Blaha MJ, Michos ED. Usefulness of lipoprotein-associated phospholipase A2 activity and C-reactive protein in identifying high-risk smokers for atherosclerotic cardiovascular disease (from the Atherosclerosis Risk in Communities Study). *Am J Cardiol* 2018;121:1056–1064.
13. **Trial J, Cieslik KA**. Changes in cardiac resident fibroblast physiology and phenotype in aging. *Am J Physiol Heart Circ Physiol* 2018 [Epub ahead of print].
14. Vart P, Matsushita K, Rawlings AM, Selvin E, Crews DC, Ndumele CE, **Ballantyne CM**, Heiss G, Kucharska-Newton A, Szklo M, Coresh J. SES, heart failure, and N-terminal pro-B-type natriuretic peptide: the Atherosclerosis Risk in Communities Study. *Am J Prev Med* 2018;54:229–236.
15. Tang W, Yao L, **Hoogeveen RC**, Alonso A, Couper DJ, Lutsey PL, Steenson CC, Guan W, Hunter DW, Lederle FA, Folsom AR. The association of biomarkers of inflammation and extracellular matrix degradation with the risk of abdominal aortic aneurysm: the ARIC Study. *Angiology* 2018 [Epub ahead of print].
16. Smith MW, Brown C, **Virani SS**, Weir CR, Petersen LA, Kelly N, Akeroyd J, Garvin JH. Incorporating guideline adherence and practice implementation issues into the design of decision support for beta-blocker titration for heart failure. *Appl Clin Inform* 2018;9:478–489.
17. Vaughan EM, Moreno JP, Hyman D, Chen TA, **Foreyt JP**. Efficacy of oral versus insulin therapy for newly diagnosed diabetes in low-income settings. *Arch Gen Intern Med* 2017;1:17–22.
18. Lockyer P, Mao H, Fan Q, Li L, LYu-Lee L, Eissa NT, Patterson C, **Xie L, Pi X**. LRP1-dependent BMPER signaling regulates lipopolysaccharide-induced vascular inflammation. *Arterioscler Thromb Vasc Biol* 2017;37:1524–1535.

38. Benjamin EJ, **Virani SS**, Callaway CW, Chamberlain AM, Chang AR, Cheng S, Chiuve SE, Cushman M, Delling FN, Deo R, de Ferranti SD, Ferguson JF, Fornage M, Gillespie

50. Lai YC, **Li N**, Lawrence W, Wang S, Levine A, Burchhardt DM, Pautler RG,

64. Navaneethan SD, **Virani SS**. Omega-3 fatty acids (fish oil) supplementation and albuminuria: not a slam dunk. *J Am Heart Assoc* 2017;6:e006020.
65. van Capelleveen JC, Bochem AE, Boekholdt SM, Mora S, **Hoogeveen RC, Ballantyne CM**, Ridker PM, **Sun W**, Barter PJ, Tall AR, Zwinderman AH, Kastelein JJP, Wareham NJ, Khaw KT, Hovingh GK. Association of high-density lipoprotein-cholesterol versus apolipoprotein A-I with risk of coronary heart disease: the European Prospective Investigation into Cancer-Norfolk Prospective Population Study, the Atherosclerosis Risk in Communities Study, and the Women's Health Study. *J Am Heart Assoc* 2017;6:e006636.
66. Aronis KN, Zhao D, **Hoogeveen RC**, Alonso A, **Ballantyne CM**, Guallar E, Jones SR, Martin SS, Nazarian S, Steffen BT, **Virani SS**, Michos ED. Associations of lipoprotein(a) levels with incident atrial fibrillation and ischemic stroke: the ARIC (Atherosclerosis Risk in Communities) Study. *J Am Heart Assoc* 2017;6:e007372.
67. Salami JA, Warraich HJ, Valero-Elizondo J, Spatz ES, Desai NR, Rana JS, **Virani SS**, Blankstein R, Khera A, Blaha MJ, Blumenthal RS, Katzen BT, Lloyd-Jones D, Krumholz HM, Nasir K. National trends in nonstatin use and expenditures among the US adult population from 2002 to 2013: Insights From Medical Expenditure Panel Survey. *J Am Heart Assoc* 2018;7:e007132.
68. Singh J, Valero-Elizondo J, Salami JA, Warraich HJ, Ogunmoroti O, Spatz ES, Desai N, Rana JS, **Virani SS**, Blankstein R, Blaha MJ, Nasir K. Favorable modifiable cardiovascular risk profile is associated with lower healthcare costs among cancer patients: the 2012-2013 Medical Expenditure Panel Survey. *J Am Heart Assoc* 2018;7:e007874.
69. Basra SS, Wang TY, Simon DN, Chiswell K, **Virani SS**, Alam M, **Nambi V**, Denktas AE, Deswal A, Bozkurt B, **Ballantyne CM**, Peterson ED, Jneid H. Ticagrelor use in acute myocardial infarction: insights from the National Cardiovascular Data Registry. *J Am Heart Assoc* 2018;7:e008125.
70. Kayani WT, **Ballantyne CM**. Improving outcomes after myocardial infarction in the US population. *J Am Heart Assoc* 2018;7:e008407.
71. Nanna MG, Navar AM, Wang TY, Mi X, **Virani SS**, Louie MJ, Lee LV, Goldberg AC, Roger VL, Robinson J, Peterson ED. Statin use and adverse effects among adults >75 years of age: insights from the Patient and Provider Assessment of Lipid Management (PALM) Registry. *J Am Heart Assoc* 2018;7:e008546.
72. Juraschek SP, Daya N, Appel LJ, Miller ER III, McEvoy JW, Matsushita K, **Ballantyne CM**, Selvin E. Orthostatic hypotension and risk of clinical and subclinical cardiovascular disease in middle-aged adults. *J Am Heart Assoc* 2018;7:e008884.
73. Miedema MD, Dardari ZA, Kianoush S, **Virani SS**, Yeboah J, Knickelbine T, Sandfort V, Rodriguez CJ, Nasir K, Blaha MJ. Statin eligibility, coronary artery calcium, and subsequent cardiovascular events according to the 2016 United States Preventive Services Task Force (USPSTF) Statin Guidelines: MESA (Multi-Ethnic Study of Atherosclerosis). *J Am Heart Assoc* 2018;7:e008920.
74. Pradhan S, Khatlani T, Nairn AC, **Vijayan KV**. The heterotrimeric G protein G β_1 interacts with the catalytic subunit of protein phosphatase 1 and regulates G protein coupled receptor signaling in platelets. *J Biol Chem* 2017;292:13133–13142.
75. Suh JH, Lai L, Nam D, Kim J, Jo J, **Taffet GE**, Kim E, Kaelber JT, Lee HK, **Entman ML**, Cooke JP, Reineke EL. Steroid receptor coactivator-2 (SRC-2) coordinates cardiomyocyte paracrine signaling to promote pressure overload-induced angiogenesis. *J Biol Chem* 2017;292:21643-21652.
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89. Vaughan EM, Johnston CA, Hyman DJ, Hernandez DC, Hemmige V, **Foreyt JP**. Dual therapy appears superior to monotherapy for low-income individuals with newly diagnosed type 2 diabetes. *J Prim Care Community Health* 2017;8:305–311.
90. Brinton EA, **Ballantyne CM**, Guyton JR, Philip S, Doyle RT Jr, Juliano RA, Mosca L. Lipid effects of icosapent ethyl in women with diabetes mellitus and persistent high triglycerides on statin treatment: ANCHOR trial subanalysis. *J Womens Health (Larchmt)* 2018 [Epub ahead of print].
91. Hira RS, Vemulapalli S, Li Z, McCabe JM, Rumsfeld JS, Kapadia SR, Alam M, Jneid H, Don C, Reisman M, **Virani SS**, Kleiman NS. Trends and outcomes of off-label use of transcatheter aortic valve replacement: insights from the NCDR STS/ACC TVT Registry. *JAMA Cardiol* 2017;2:846–854.
92. Arrieta A, Hong JC, Khera R, **Virani SS**, Krumholz HM, Nasir K. Updated cost-effectiveness assessments of PCSK9 inhibitors from the perspectives of the health system and private payers: insights derived from the FOURIER Trial. *JAMA Cardiol* 2017;2:1369–1374.
93. Schwartz GG, **Ballantyne CM**, Barter PJ, Kallend D, Leiter LA, Leitersdorf E, McMurray JJV, Nicholls SJ, Olsson AG, Shah PK, Tardif JC, Kittelson J. Association of lipoprotein(a) with risk of recurrent ischemic events following acute coronary syndrome: analysis of the dal-Outcomes randomized clinical trial. *JAMA Cardiol* 2018;3:164–168.
94. Vazir A, Claggett B, Cheng S, Skali H, Shah A, Aguilar D, **Ballantyne CM**, Vardeny O, Solomon SD. Association of resting heart rate and temporal changes in heart rate with outcomes in participants of the Atherosclerosis Risk in Communities Study. *JAMA Cardiol* 2018;3:200–206.
95. Nanna MG, Navar AM, Zakrofsky P, Xiang Q, Goldberg AC, Robinson J, Roger VL, **Virani SS**, Wilson PWF, Elassal J, Lee LV, Wang TY, Peterson ED. Association of patient perceptions of cardiovascular risk and beliefs on statin drugs with racial differences in statin use: insights from the Patient and Provider Assessment of Lipid Management Registry. *JAMA Cardiol* 2018 [Epub ahead of print].

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101. **Saeed A**, Kampangkaew J, **Nambi V**. Prevention of cardiovascular disease in women. *Methodist Deakey Cardiovasc J* 2017;13:185–192.
 102. Giugliano RP, Mach F, Zavitz K, Kurtz C, Im K, Kanevsky E, Schneider J, Wang H, Keech A, Pedersen TR, Sabatine MS, Sever PS, Robinson JG, Honarpour N, Wasserman SM, Ott BR, for the EBBINGHAUS Investigators [Collaborators (461): Wittert G, Begg A, Simpson R, ... **Ballantyne C**, ...]. Cognitive function in a randomized trial of evolocumab. *N Engl J Med* 2017;377:633–643.
 103. Ridker PM, Everett BM, Thuren T, MacFadyen JG, Chang WH, **Ballantyne C**, Fonseca F, Nicolau J, Koenig W, Anker SD, Kastelein JJP, Cornel JH, Pais P, Pella D, Genest J, Cifkova R, Lorenzatti A, Forster T, Kobalava Z, Vida-Simiti L, Flather M, Shimokawa H, Ogawa H, Dellborg M, Rossi PRF, Troquay RPT, Libby P, Glynn RJ, for the CANTOS Trial Group. Antiinflammatory therapy with canakinumab for atherosclerotic disease. *N Engl J Med* 2017;377:1119–1131.
 104. HPS3/TIMI55–REVEAL Collaborative Group [Bowman L, Hopewell JC, Chen F, Wallendszus K, Stevens W, Collins R, Wiviott SD, Cannon CP, Braunwald E, Sammons E, Landray MJ; Collaborators (2325): Jiang L, Armitage J, Haynes R, ..., **Ballantyne C**, ...]. Effects of anacetrapib in patients with atherosclerotic vascular disease. *N Engl J Med* 2017;377:1217–1227.
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106. **Li N**, Dobrev D. Targeting atrial fibrillation promoting atrial structural remodeling: is this a viable strategy in patients with heart failure? *Naunyn Schmiedeberg's Arch Pharmacol* 2018;391:231–233.
107. Walker KA, **Hoogeveen RC**, Folsom AR, **Ballantyne CM**, Knopman DS, Windham BG, Jack CR Jr, Gottesman RF. Midlife systemic inflammatory markers are associated with late-life brain volume: the ARIC study. *Neurology* 2017;89:2262–2270.
108. **Virani SS**, Akeroyd JM, Ramsey DJ, Deswal A, Nasir K, Rajan SS, **Ballantyne CM**, Petersen LA. Health care resource utilization for outpatient cardiovascular disease and diabetes care delivery among advanced practice providers and physician providers in primary care. *Popul Health Manag* 2018;21:209–216.
109. Wu J, **Wu H**, An J, **Ballantyne CM**, Cyster JG. Critical role of integrin CD11c in splenic dendritic cell capture of missing-self CD47 cells to induce adaptive immunity. *Proc Natl Acad Sci U S A* 2018;115:6786–6791.
110. Fashanu OE, Heckbert SR, Aguilar D, Jensen PN, **Ballantyne CM**, Basu S, **Hoogeveen RC**, deFilippi C, Cushman M, Folsom AR. Galectin-3 and venous thromboembolism incidence: the Atherosclerosis Risk in Communities (ARIC) Study. *Res Pract Thromb Haemost* 2017;1:223–230.
111. Walker KA, Power MC, **Hoogeveen RC**, Folsom AR, **Ballantyne CM**, Knopman DS, Windham BG, Selvin E, Jack CR Jr, Gottesman RF. Midlife systemic inflammation, late-life white matter integrity, and cerebral small vessel disease: the Atherosclerosis Risk in Communities Study. *Stroke* 2017;48:3196–3202.
112. Faza NN, **Virani SS**, **Nambi V**, Shah T. Aberrant course of pacemaker leads: when left is left. *Tex Heart Inst J* 2018;45:52–53.
113. McBride CL, Akeroyd JM, Ramsey DJ, **Nambi V**, Nasir K, Michos ED, Bush RL, Jneid H, Morris PB, Bittner VA, **Ballantyne CM**, Petersen LA, **Virani SS**. Statin prescription rates and their facility-level variation in patients with peripheral artery disease and ischemic cerebrovascular disease: Insights from the Department of Veterans Affairs. *Vasc Med* 2018;23:232–240.

B. Awards and honors

1. **Ballantyne**: Houston Chronicle Top Doctors 2017
2. **Ballantyne**: Castle Connaly Top Doctors: Southeast Texas, Castle Connaly Medical Ltd., 2017
3. **Ballantyne**: Castle Connaly Top Doctors in Texas for the Speciality of Cardiovascular Disease, Castle Connolly Medical Ltd., 2017
4. **Ballantyne**: Castle Connaly Top Doctors in America, Castle Connolly Medical Ltd., 2018

5. **Ballantyne:** Editorial Board, *Future Lipidology*
6. **Cruz:** Editorial Board, *Thrombosis & Haemostasis: Research*
7. **Foreyt:** Editorial Board, *American Journal of Health Behavior*
8. **Foreyt:** Editorial Board, *American Journal of Health Promotion*
9. **Foreyt:** Editorial Board, *American Journal of Lifestyle Medicine*
10. **Foreyt:** Editorial Board,

34. **Wu:** Didactic Lecture, Cardiovascular Disease and Pathology (GS-CS-412), BCM
35. **Wu:** Judge, Young Investigator Award Oral Presentation, 2018 CAAC-MPVD-ATVB Symposium, San Francisco, CA

E. Grants

1. **Ballantyne (co-PI):** Profiling Cardiovascular Events and Biomarkers in the Very Old to Improve Personalized Approaches for the Prevention of Cardiac and Vascular Disease; NIH/NHLBI (R01); annual direct costs \$549,802 (09/01/2016–08/31/2020)
2. **Ballantyne (coinvestigator):** Atherosclerosis Risk in Communities (ARIC) Study–Field Centers; NIH; annual direct costs \$311,673 (11/15/2016–11/14/2021)
3. **Ballantyne (coinvestigator):** Monocyte Activation and the Role of CD11c in Obesity-Linked Metabolic Syndrome; NIH/NHLBI (R01); annual direct costs \$241,769 (04/01/2015–03/31/2020)
4. **Ballantyne (coinvestigator):** Diabetes and Prediabetes in Older Adults; NIH/NIDDK (R01); annual direct costs \$36,371 (01/01/2016–12/31/2020)
5. **Ballantyne (coinvestigator):** miRNAs, Whole Diet, and Coronary Heart Disease; NIH/NHLBI (R56); total direct costs \$12,147 (09/01/2016–08/31/2018)
6. **Ballantyne (coinvestigator):** Comparative Effectiveness of Physicians versus Non-physicians for the Delivery of Outpatient Diabetes Care: Implications for Access to Care under the Affordable Care Act; American Diabetes Association; total direct costs: \$486,957 (01/01/2014–12/31/2017)
7. **Ballantyne (PI):** The Familial Hypercholesterolemia Foundation Cascade-FH Registry; Duke University; total direct costs \$20,000 (07/01/2014–06/30/2019)
8. **Ballantyne (PI):** Measurement of Galectin-3 at Visit 4 and Visit 5 for the Full ARIC Cohort; Abbott Laboratories; total direct costs \$31,500 (03/14/2014–07/31/2018)
9. **Ballantyne (PI):** hsTroponin Screening at Visit 4 and Visit 5 for the Full ARIC Cohort; Abbott Laboratories; total direct costs \$371,965 (05/12/2014–05/11/2019)
10. **Ballantyne (PI):** A Randomized, Double-blind, Placebo-controlled, Dose-ranging Phase 2 Study of ISIS 681257 Administered Subcutaneously to Patients with Hyperlipoproteinemia(a) and Established Cardiovascular Disease (CVD); Akcea Therapeutics; total direct costs \$172,510 (02/28/2017–02/27/2020)
11. **Ballantyne (PI):** A Randomized, Double-blind, Placebo-controlled, Dose-ranging Phase 2 Study of ISIS 678354 Administered Subcutaneously to Patients with Hypertriglyceridemia and Established Cardiovascular Disease; Akcea Therapeutics; total direct costs \$206,886 (03/08/2018–03/07/2021)
12. **Ballantyne (PI):** A Multicenter, Controlled, Open-Label Extension (OLE) Study to Assess the Long-Term Safety and Efficacy of AMG-145; Amgen, Inc; total direct costs \$43,965 (06/01/2013–02/08/2018)
13. **Ballantyne (PI):** GAUSS-3A—Double-Blind, Randomized, Multicenter Study to Evaluate the Safety and Efficacy of AMG 145, Compared with Ezetimibe, in Hypercholesterolemic Subjects Unable to Tolerate an Effective Dose of an HMG-CoA Reductase Inhibitor due to Muscle Related Side Effects; Amgen, Inc; total direct costs \$60,085 (02/18/2014–03/21/2018)
14. **Ballantyne (PI):** A Multicenter, Open-Label, Single-Arm, Extension Study to Assess Long-Term Safety of Evolocumab Therapy in Patients with Clinically Evident Cardiovascular Disease; Amgen Inc; total direct costs \$45,670 (08/17/2016–12/31/2021)
15. **Ballantyne (PI):** A Randomized, Double-Blind, Placebo-Controlled, Multicenter Long-

Term Safety and Tolerability Study of ETC 1002 in Patients with Hyperlipidemia at High Cardiovascular Risk Who Are Not Adequately Controlled by Their Lipid-Modifying Therapy; Esperion Therapeutics; total direct costs \$62,963 (06/27/2016–06/29/2018)

16. **Ballantyne (PI):** A Randomized, Double-Blind, Placebo-Controlled Study to Assess the Effects of Bempedoic Acid (ETC-1002) on the Occurrence of Major Cardiovascular Events in Patients with, or at High Risk for, Cardiovascular Disease Who Are Statin Intolerant; Esperion Therapeutics; total direct costs \$40,614 (05/17/2017–04/30/2020)
17. **Ballantyne (PI):** A randomized, double-blind, placebo-controlled, parallel group, multicenter study to evaluate the efficacy and safety of bempedoic acid (ETC1002) 180 mg/day as add-on to ezetimibe therapy in patients with elevated LDL-C; Esperion Therapeutics; total direct costs \$29,253 (06/07/2017–04/25/2018)
18. **Ballantyne (PI):** A Randomized, Double-Blind, Parallel-group Study to Evaluate the Efficacy and Safety of Bempedoic Acid 180 mg + Ezetimibe 10 mg Fixed-dose Combination Compared to Bempedoic Acid, Ezetimibe, and Placebo Alone in Patients Treated With Maximally Tolerated Statin Therapy; Esperion Therapeutics; total direct costs \$21,194 (11/29/2017–11/17/2018)
19. **Ballantyne (PI):** A Multicenter Open-Label Extension (OLE) Study to Assess the Long-term Safety and Efficacy of Bempedoic Acid (ETC-1002) 180 mg; Esperion Therapeutics; total direct costs \$22,400 (08/07/2017–12/31/2019)
20. **Ballantyne (PI):** A Randomized, Double-Blind, Placebo-Controlled, Event-Driven Trial of Quarterly Subcutaneous Canakinumab in the Prevention of Recurrent Cardiovascular Events among Stable Post-Myocardial Infarction Patients with Elevated hsCRP; Novartis Pharmaceutical Company; total direct costs \$125,877 (04/25/2011–12/31/2020)
21. **Brunner (PI):** Microvascular Perfusion Assessment of Ischemic Diabetic Ulcers Using MRI; NIH/NHLBI (K25); annual direct costs \$154,958 (12/01/2014–12/31/2019)
22. **Brunner (PI):** MRI Based Calf Muscle Perfusion to Assess Patients with Symptomatic PAD; NIH/NHLBI (R01); annual direct costs \$350,417 (08/01/2017–07/31/2022)
23. **Brunner (coinvestigator):** Biomarker Guided Therapies in Stage A/B Heart Failure; VA Office of Research and Development; annual direct costs \$14,189 (04/01/2014–03/31/2019)
24. **Cieslik (co-PI):** Trafficking Leukocytes in the Aging Mouse Heart: in Vivo MRI and Flow Cytometry; BCM Cardiovascular Research Institute Pilot Award (09/01/2017–06/30/2018)
25. **Cieslik (coinvestigator):** Role of Blood-Borne Fibroblast Precursors in Ischemic Cardiomyopathy; NIH/NHLBI (R01); annual direct costs \$250,000 (07/01/2007–11/30/2017)
26. **Cieslik (PI):** A Spontaneous Mutation in *Nnt* Gen3 TcJ-4.289a2c n6s in I6o(Cardiovasrsors 2D 3TD.000

31. **Foreyt (PI):** Study of Health Outcomes of Weight-Loss (Look AHEAD) Trial; NIH/NIDDK (U01); annual direct costs \$152,265 (09/01/1999–01/31/2019)
32. **Foreyt (PI):** Vitamin D to Prevent Type 2 Diabetes (D2d Study); NIH/NIDDK (U01); annual direct costs \$45,309 (06/01/2013–01/31/2019)
33. **Hoogeveen (coinvestigator):** Atherosclerosis Risk in Communities (ARIC) Study—Field Centers; NIH/NHLBI; annual direct costs \$311,673 (11/15/2016–11/14/2021)
34. **Hoogeveen (coinvestigator):** Diabetes and Pre-diabetes in Older Adults; NIH/NIDDK (R01); total direct costs \$200,000 (09/01/2016–12/31/2020)
35. **Hoogeveen (coinvestigator):** Endogenous Hormones and Postmenopausal Breast Cancer: Etiologic Insights and Improving Risk Prediction; NIH/NCI; annual direct costs \$76,772 (06/15/2017–03/31/2022)
36. **Hoogeveen (PI):** Relation of Lipoprotein(a) and Small Dense LDL-C (sdLDL-C) to Incident CHD and Stroke: the ARIC Study; Denka Seiken Co, Ltd; annual direct costs \$18,021 (10/01/2010–12/31/2017)
37. **Hoogeveen (PI):** Relationship of Small-Dense LDL Cholesterol (sdLDL-C) and Lp(a) with Progression of Atherosclerosis in the Study of Coronary Atheroma by Intravascular Ultrasound: Effect of Rosuvastatin versus Atorvastatin (SATURN) Trial; Denka Seiken Co, Ltd (11/01/2013–12/31/2017)
38. **Hoogeveen (PI):** Lipoprotein Subfractions Study: the ARIC Study; Denka Seiken Co, Ltd; annual direct costs \$56,750 (11/01/2015–08/31/2018)
39. **Jones:** A Multi-center, Prospective, Randomized, Double-Blind, Placebo-Controlled , Parallel-Group Study to Evaluate the Effect of AMR101 on Cardiovascular Health and Mortality in Hypertriglyceridemic Patients with Cardiovascular Disease or at High Risk for Cardiovascular Disease: REDUCE-IT (Reduction of Cardiovascular Events with EPA Intervention Trial); Amarin Pharmaceuticals; total direct costs \$25,000 (06/01/2012–12/31/2018)
40. **Li (PI):** Inflammasome Mediated Pathogenesis of Atrial Fibrillation; NIH/NHLBI (R56); annual direct costs \$250,000 (09/01/2016–08/31/2018)
41. **Li (PI):** The Role of Inflammasome in the Pathogenesis of Atrial Fibrillation; NIH/NHLBI (R01); annual direct costs \$379,069 (09/01/2017–06/30/2021)
42. **Li (PI):** Transcriptional Regulation of Ryanodine Receptor 2 in Atrial Fibrillation; American Heart Association Scientist Development Grant; annual direct costs \$379,069 (09/01/2017–06/30/2021)
43. **Li (coinvestigator):** Novel Roles of FE^{2+} , 2-Oxoglutarate-Dependent Dioxygenases in Cardiac Function; NIH/NHLBI (R01); annual direct costs \$250,000 (09/01/2015–08/31/2020)
44. **Li (coinvestigator):** Pitx2 in Atrial Fibrillation; NIH/NHLBI (R01); annual direct costs \$327,304 (02/01/2018–02/28/2023)
45. **Nambi (PI):** Biomarker Guided Therapies in Stage A/B Heart Failure; VA Office of Research and Development; annual direct costs \$14,189 (04/01/2014–03/31/2019)
46. **Nambi (PI):** TIMI 55/REVEAL (Randomized Evaluation of the Effects of Anacetrapib through Lipid-Modification): A Large Scale, Randomized, Placebo-Controlled Trial of the Clinical Effects of Anacetrapib among People with Established Vascular Disease; Brigham and Women's Hospital; total direct costs \$150,000 (11/01/2011–02/28/2019)
47. **Pi (PI):** LRP1 and Endothelial Function; NIH/NHLBI (R01); annual direct costs \$250,000 (08/01/2013–05/31/2019)
48. **Pi (PI):** Signaling in Endothelial Growth and Angiogenesis; NIH/NHLBI (R01); annual direct costs \$250,000 (12/18/2013–12/31/2018)

49. **Trial (coinvestigator):** Role of Blood-Borne Fibroblast Precursors in Ischemic Cardiomyopathy; NIH/NHLBI (R01); annual direct costs \$250,000 (07/01/2007–11/30/2017)
50. **Vijayan (PI):** Serine/Threonine Phosphatases and Platelet Physiology; NIH/NHLBI (R01); annual direct costs \$250,000 (03/01/2013–02/28/2019)
51. **Vijayan (multi-PI):** Microvascular Thrombosis in Systemic Inflammation; NIH/NIGMS (R01); annual direct costs \$220,000 (09/25/2014–05/31/2019)
52. **Vijayan (PI of subcontract to Baylor College of Medicine):** Aspirin-PC for Chemoprevention of Colorectal Cancer; NIH/NCI (R42); annual direct costs \$86,000 (05/01/2017–04/30/2019)
53. **Vijayan (PI):** PP2B Modulates RhoA Activation and Platelet Function by Targeting RhoGDI; American Heart Association; annual direct costs \$70,000 (07/01/2017–06/30/2019)
54. **Virani (PI):** Comparative Effectiveness of Physicians versus Non-physicians for the Delivery of Outpatient Diabetes Care: Implications for Access to Care under the Affordable Care Act; American Diabetes Association; total direct costs: \$486,957 (01/01/2014–12/31/2017)
55. **Virani (PI):** Determining and Targeting Reasons for Low Statin Use to Improve Guideline-Concordant Statin Therapy in High-Risk Patients; VA Merit Award; total direct costs: \$1,097,703 (07/01/2017–06/30/2021)
56. **Wu (PI):** Monocyte Activation and the Role of CD11c in Obesity-Linked Metabolic Syndrome; NIH/NHLBI (R01); annual direct costs \$241,769 (04/01/2015–03/31/2020)
57. **Wu (PI):** ApoCIII, Triglyceride-Rich Lipoproteins and Atherogenesis; American Heart Association; total direct costs \$140,000 (07/01/2016–06/30/2019)
58. **Wu (PI):** Macrophage/Dendritic Cell Activation and Inflammation in Diet-Induced Obesity; American Diabetes Association; annual direct costs \$104,546 (01/01/2017–12/31/2019)
59. **Wu (co-PI):** Imaging Monocyte Tracking into Atherosclerosis and Adipose Tissue in Mice; BCM Cardiovascular Research Institute Pilot Award; total direct costs \$15,000 (09/01/2017–06/30/2018)
60. **Xie (PI):** Novel Roles of FE^{2+} , 2-Oxoglutarate-Dependent Dioxygenases in Cardiac Function; NIH/NHLBI (R01); annual direct costs \$250,000 (09/01/2015–08/31/2020)
61. **Xie (coinvestigator):** LRP1 and Endothelial Function; NIH/NHLBI (R01); annual direct costs \$250,000 (08/01/2013–05/31/2019)
62. **Xie (coinvestigator):** Signaling in Endothelial Growth and Angiogenesis; NIH/NHLBI (R01); annual direct costs \$250,000 (12/18/2013–12/31/2018)