



Ramzi Emanuel Dudum

Bio

BIO

Dr. Dudum is a cardiologist and population health expert working to develop novel risk prediction methods and implementation strategies to create practices and systems that allow for reductions in cardiovascular disease. He completed a Masters in Public Health at Johns Hopkins concentrating in epidemiology and biostatistics and a Doctorate of Medicine at George Washington University.

He completed internal medicine residency training as part of the Osler Medical Service, where he worked under the mentorship of Drs. Roger Blumenthal and Michael Blaha to study improving cardiovascular risk prediction and coronary artery calcium. Given his focus on population health and implementation science, he also helped launch and refine risk adjustment tools and implemented guideline-directed medical care pathways. During his time there, he was recognized for his clinical acumen and dedication to patient care.

He came to Stanford for his cardiovascular medicine fellowship and continued research in coronary artery calcium under the mentorship of Drs. David Maron and Fatima Rodriguez while also conducting cardiovascular health implementation science work under the mentorship of Dr. Steve Asch. He serves as the co-investigator of a prospective randomized trial testing the effects of notification of incidental coronary artery calcium on statin initiation rates among those with and without cardiovascular disease (NCT 05588895). He has worked with hospital leaders to implement digital health and artificial intelligence tools, creating the infrastructure for the prospective use of AI-algorithms on radiology studies. As a preventive cardiologist and population health expert, he leads efforts in the preventive cardiology section related to improving cardiovascular health.

INSTITUTE AFFILIATIONS

- Member (Postdoc), Cardiovascular Institute

HONORS AND AWARDS

- Chief Fellow, Department of Cardiovascular Medicine, Stanford University (2023)
- Profiles of Excellence Award, American College of Physicians, Department of Medicine, Johns Hopkins Hospital (2020)
- Norman and Mary Stewart Memorial Award, Department of Medicine, Johns Hopkins Hospital (2018)
- Allie S. Freed Award in Preventive Medicine, GWU School of Medicine and Health Sciences (2017)
- Medical Alumni Association Award, GWU School of Medicine and Health Sciences (2017)
- AQA Carolyn L. Kuckein Student Research Fellowship, Alpha Omega Alpha (2016)
- Kassar Research Presentation Award, GWU School of Medicine and Health Sciences (2016)
- MPH Capstone Award, Johns Hopkins University, Bloomberg School of Public Health (2016)

- Gold Humanism Honors Society, GWU School of Medicine and Health Sciences (2015)
- Chancellor's Service Award, UCLA Office of the Dean of Students (2011)
- Dean's Prize in Undergraduate Research, UCLA Spring Poster Day (2011)
- Special Achievement in the Study of Religion, UCLA Department of Religion (2011)
- Distinguished Senior Award, UCLA Alumni Association (2010)
- College Honors Student, UCLA Honors Collegium (2007-2011)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, American Heart Association (2016 - present)

PROFESSIONAL EDUCATION

- Masters of Science (candidate), Stanford University , Health Policy (2024)
- Internship, Johns Hopkins Hospital , Internal Medicine (2018)

Publications

PUBLICATIONS

- **Sociodemographic Differences Among Patients Receiving Coronary Artery Calcium Imaging vs Nongated Chest Computed Tomography Imaging.** *JACC. Advances*
Peng, A. W., Skye, M., Jain, S. S., Dudum, R., Maron, D. J., Din, N., Patel, B. N., Chaudhari, A. S., Sandhu, A. T., Rodriguez, F.
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- **Lipoprotein(a) Levels in Disaggregated Racial and Ethnic Subgroups Across Atherosclerotic Cardiovascular Disease Risk Levels.** *JACC. Advances*
Dudum, R., Huang, Q., Yan, X. S., Fonseca, M. A., Jose, P., Sarraju, A., Palaniappan, L., Rodriguez, F.
2024; 3 (6): 100940
- **Artificial Intelligence in Cardiovascular Disease Prevention: Is it Ready for Prime Time?** *Current atherosclerosis reports*
Parsa, S., Somani, S., Dudum, R., Jain, S. S., Rodriguez, F.
2024
- **Inequities in atherosclerotic cardiovascular disease prevention.** *Progress in cardiovascular diseases*
Gomez, S., Dudum, R., Rodriguez, F.
2024
- **Contemporary attitudes and beliefs on coronary artery calcium from social media using artificial intelligence.** *NPJ digital medicine*
Somani, S., Balla, S., Peng, A. W., Dudum, R., Jain, S., Nasir, K., Maron, D. J., Hernandez-Boussard, T., Rodriguez, F.
2024; 7 (1): 83
- **Beyond Primary Prevention: The Intersection of Severe Coronary Calcium, Left Main Coronary Calcium, and Diabetes.** *JACC. Cardiovascular imaging*
Rodriguez, F., Dudum, R.
2024
- **Patterns and gaps in guideline-directed statin use for atherosclerotic cardiovascular disease by race and ethnicity.** *American journal of preventive cardiology*
Sarraju, A., Yan, X., Huang, Q., Dudum, R., Palaniappan, L., Rodriguez, F.
2024; 17: 100647
- **Association of Coronary Artery Calcium Detected by Routine Ungated CT Imaging With Cardiovascular Outcomes.** *Journal of the American College of Cardiology*
Peng, A. W., Dudum, R., Jain, S. S., Maron, D. J., Patel, B. N., Khandwala, N., Eng, D., Chaudhari, A. S., Sandhu, A. T., Rodriguez, F.
2023; 82 (12): 1192-1202
- **"Incidentalomas" in the Age of Artificial Intelligence.** *Journal of general internal medicine*

Dudum, R., Asch, S. M.
2023

- **SOCIAL DETERMINANTS OF HEALTH AND CORONARY ARTERY CALCIUM: RESULTS FROM THE PROJECT BASELINE HEALTH STUDY**
Dudum, R., Ling, A., Short, S., Koweek, L. H., Carroll, M., Daubert, M. A., Haddad, F., Hernandez, A. F., Shah, S., Mahaffey, K. W., Douglas, P. S., Mega, J., Maron, et al
ELSEVIER SCIENCE INC.2023: 1843
- **OPPORTUNISTIC SCREENING OF INCIDENTAL CORONARY ARTERY CALCIUM WITH DEEP-LEARNING ALGORITHM ON NON-ECG GATED CHEST CT IMAGING AND ASSOCIATION WITH CARDIOVASCULAR EVENTS AND MORTALITY**
Peng, A., Dudum, R., Maron, D., Sandhu, A., Rodriguez, F.
ELSEVIER SCIENCE INC.2023: 2123
- **PATTERNS AND GAPS IN GUIDELINE-DIRECTED STATIN USE FOR ATHEROSCLEROTIC CARDIOVASCULAR DISEASE IN DISAGGREGATED HISPANIC AND ASIAN SUBGROUPS**
Sarraj, A., Yan, S., Huang, Q., Dudum, R., Palaniappan, L. P., Rodriguez, F.
ELSEVIER SCIENCE INC.2023: 1785
- **Coronary Artery Calcium Dispersion and Cause-Specific Mortality.** *The American journal of cardiology*
Dudum, R., Dardari, Z. A., Feldman, D. I., Berman, D. S., Budoff, M. J., Miedema, M. D., Nasir, K., Rozanski, A., Rumberger, J. A., Shaw, L., Dzaye, O., Caínzos-Achirica, M., Patel, et al
2023; 191: 76-83
- **Unfavorable social determinants of health are associated with higher burden of financial toxicity among patients with atherosclerotic cardiovascular disease in the US: findings from the National Health Interview Survey.** *Archives of public health = Archives belges de sante publique*
Valero-Elizondo, J., Javed, Z., Khera, R., Tano, M. E., Dudum, R., Acquah, I., Hyder, A. A., Andrieni, J., Sharma, G., Blaha, M. J., Virani, S. S., Blankstein, R., Cainzos-Achirica, et al
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- **Coronary Artery Calcium Score to Refine the Use of PCSK9i in Asymptomatic Individuals: A Multicohort Study.** *Journal of the American Heart Association*
Cainzos-Achirica, M., Quispe, R., Mszar, R., Dudum, R., Al Rifai, M., Erbel, R., Stang, A., Jockel, K., Lehmann, N., Schramm, S., Schmidt, B., Toth, P. P., Rana, et al
2022: e025737
- **Ten things to know about ten cardiovascular disease risk factors - 2022.** *American journal of preventive cardiology*
Bays, H. E., Kulkarni, A., German, C., Satish, P., Iluyomade, A., Dudum, R., Thakkar, A., Rifai, M. A., Mehta, A., Thobani, A., Al-Saiegh, Y., Nelson, A. J., Sheth, et al
2022; 10: 100342
- **CAC for Risk Stratification Among Individuals With Hypertriglyceridemia Free of Clinical Atherosclerotic Cardiovascular Disease.** *JACC. Cardiovascular imaging*
Cainzos-Achirica, M., Quispe, R., Dudum, R., Greenland, P., Lloyd-Jones, D., Rana, J. S., Lima, J. A., Doria de Vasconcellos, H., Joshi, P. H., Khera, A., Ayers, C., Erbel, R., Stang, et al
1800
- **Development and validation of a polysocial risk score for atherosclerotic cardiovascular disease.** *American journal of preventive cardiology*
Javed, Z., Valero-Elizondo, J., Dudum, R., Khan, S. U., Dubey, P., Hyder, A. A., Xu, J., Bilal, U., Kash, B. A., Cainzos-Achirica, M., Nasir, K.
2021; 8: 100251
- **Assessment of Coronary Artery Calcium Scoring to Guide Statin Therapy Allocation According to Risk-Enhancing Factors: The Multi-Ethnic Study of Atherosclerosis.** *JAMA cardiology*
Patel, J., Pallazola, V. A., Dudum, R., Greenland, P., McEvoy, J. W., Blumenthal, R. S., Virani, S. S., Miedema, M. D., Shea, S., Yeboah, J., Abbate, A., Hundley, W. G., Karger, et al
2021
- **Cardiac Computed Tomography for Personalized Management of Patients With Type 2 Diabetes Mellitus.** *Circulation. Cardiovascular imaging*
Cardoso, R., Dudum, R., Ferraro, R. A., Bittencourt, M., Blankstein, R., Blaha, M. J., Nasir, K., Rajagopalan, S., Michos, E. D., Blumenthal, R. S., Cainzos-Achirica, M.
2020; 13 (9): e011365

- **Summarizing 2019 in Cardiovascular Prevention Using the Johns Hopkins Ciccarone Center for the Prevention of Cardiovascular Disease's 'ABC's Approach.** *American journal of preventive cardiology*
Feldman, D. I., Dudum, R. n., Alfaddagh, A. n., Marvel, F. A., Michos, E. D., Blumenthal, R. S., Martin, S. S.
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- **Keeping a Low Profile: Insulinoma** *AMERICAN JOURNAL OF MEDICINE*
Dudum, R., Murthy, V. K.
2019; 132 (10): 1160–62
- **Coronary Artery Calcium Scoring in 2019: Past, Present, and Future** *CURRENT CARDIOVASCULAR IMAGING REPORTS*
Dudum, R., Dzaye, O., Lahti, S. J., Kianoush, S., Whelton, S. P., Blaha, M. J.
2019; 12 (9)
- **Coronary artery calcium scoring for individualized cardiovascular risk estimation in important patient subpopulations after the 2019 AHA/ACC primary prevention guidelines.** *Progress in cardiovascular diseases*
Dzaye, O. n., Dudum, R. n., Reiter-Brennan, C. n., Kianoush, S. n., Tota-Maharaj, R. n., Cainzos-Achirica, M. n., Blaha, M. J.
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- **Validation of the Coronary Artery Calcium Data and Reporting System (CAC-DRS): Dual importance of CAC score and CAC distribution from the Coronary Artery Calcium (CAC) consortium.** *Journal of cardiovascular computed tomography*
Dzaye, O. n., Dudum, R. n., Mirbolouk, M. n., Orimoloye, O. A., Osei, A. D., Dardari, Z. A., Berman, D. S., Miedema, M. D., Shaw, L. n., Rozanski, A. n., Holdhoff, M. n., Nasir, K. n., Rumberger, et al
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- **Dose-dependent effects of lifestyle interventions on blood lipid levels: Results from the PREMIER trial.** *Patient education and counseling*
Dudum, R. n., Juraschek, S. P., Appel, L. J.
2019; 102 (10): 1882–91
- **Non-statin lipid lowering and coronary plaque composition.** *Journal of cardiovascular computed tomography*
Dudum, R. n., Whelton, S. P.
2019; 13 (6): 301–2
- **Analysis of American College of Cardiology/American Heart Association Guideline Author Self-Disclosure Compared With Open Payments Industry Disclosure.** *Circulation. Cardiovascular quality and outcomes*
Dudum, R. n., Sajja, A. n., Amdur, R. L., Choi, B. G.
2019; 12 (12): e005613
- **What Clinicians Need to Know About the Cardiovascular Effects of the Most Recent Classes of Drugs Used for Type 2 Diabetes.** *The American journal of medicine*
Ferraro, R. A., Nass, C. M., Dudum, R. n., Blumenthal, R. S., Sarkar, S. n.
2019; 132 (9): 1027–31
- **Coronary artery calcium scoring in low risk patients with family history of coronary heart disease: Validation of the SCCT guideline approach in the coronary artery calcium consortium.** *Journal of cardiovascular computed tomography*
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2019; 13 (3): 21–25
- **High-Goal 'Lytes: Repletion Gone Awry?** *Journal of hospital medicine*
Dudum, R. n., Lahti, S. J., Blaha, M. J.
2019; 14 (12): 785–86
- **Serotonin Syndrome Masquerading as Ventricular Tachycardia Storm** *AMERICAN JOURNAL OF MEDICINE*
Dudum, R., Aslam, M., Madrazo, J.
2018; 131 (12): E498–E499
- **Prognostic Implications of Coronary Artery Calcium in Different Age Groups: Cause-Specific Mortality From the CAC Consortium.**
Dudum, R., Mirbolouk, M., Dardari, Z., Miedema, M. D., Shaw, L. J., Rumberger, J. A., Berman, D. S., Budoff, M. J., Al-Mallah, M. H., Nasir, K., Blaha, M.
LIPPINCOTT WILLIAMS & WILKINS.2018

- **Extreme Endurance Exercise and Progressive Coronary Artery Disease.** *Journal of the American College of Cardiology*
Lin, J. n., DeLuca, J. R., Lu, M. T., Ruehm, S. G., Dudum, R. n., Choi, B. n., Lieberman, D. E., Hoffman, U. n., Baggish, A. L.
2017; 70 (2): 293–95
- **Engaging medical students in problem-based search and study of the biomedical literature.** *International journal of medical education*
Han, Z. n., Margulies, S. L., Kurian, D. n., Jabaut, J. M., Mehta, A. n., Dudum, R. n., Koudoro, H. n., Roberts, R. S., Lee, J. n., Li, J. n., Nguyen, H. T., Elliott, M. n.
2017; 8: 297–99
- **ACC/AHA GUIDELINE AUTHOR SELF-DISCLOSURES AND THE SUNSHINE ACT: CONFLICTING REPORTS OF CONFLICTS OF INTEREST**
Dudum, R., Harfouch, O., Young, H., Choi, B.
ELSEVIER SCIENCE INC.2016: 1967
- **The Reply.** *The American journal of medicine*
Alhamoud, H. A., Dudum, R. n., Young, H. A., Choi, B. G.
2016; 129 (9): e195–6
- **Author Self-disclosure Compared with Pharmaceutical Company Reporting of Physician Payments.** *The American journal of medicine*
Alhamoud, H. A., Dudum, R. n., Young, H. A., Choi, B. G.
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- **Teaching and learning of medical biochemistry according to clinical realities: A case study.** *Biochemistry and molecular biology education : a bimonthly publication of the International Union of Biochemistry and Molecular Biology*
Jabaut, J. M., Dudum, R. n., Margulies, S. L., Mehta, A. n., Han, Z. n.
2015; 44 (1): 95–98
- **Characteristics of Unselected High-Burden Premature Ventricular Contraction Patients** *PACE-PACING AND CLINICAL ELECTROPHYSIOLOGY*
Yang, J., Dudum, R., Mandyam, M. C., Marcus, G. M.
2014; 37 (12): 1671-1680