

**Timothy B. Plante**  
**CURRICULUM VITAE**

**Position:** Bloomfield Early Career Professor in Cardiovascular Research  
Assistant Professor  
Department of Medicine  
Larner College of Medicine at the University of Vermont

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**EDUCATION**

<b>Years</b>	<b>Institution</b>	<b>Degree</b>	<b>Area of Degree or training</b>
2014-2017	Johns Hopkins University School of Medicine	Post-Doctoral Fellowship	General Internal Medicine
2014-2016	Johns Hopkins Bloomberg School of Public Health	MHS	Clinical Epidemiology
2011-2014	Georgetown University Hospital	Residency	Internal Medicine
2006-2011	University of Vermont	MD	Medicine
2009-2010	University of Vermont	Student Fellowship	Pathology
2002-2006	University of Vermont	BA	Zoology

**LICENSES, CERTIFICATION**

MEDICAL LICENSURE

2014-2017: Maryland D77388

2017-Present: Vermont 042.0013763

BOARDS

2014: ABIM certified

**FACULTY POSITIONS HELD**

Assistant Professor, Larner College of Medicine at the University of Vermont

**OTHER POSITIONS AND MAJOR ADMINISTRATIVE POSITIONS HELD**

None

**HONORS AND AWARDS**

Bloomfield Early Career Professor in Cardiovascular Research (7/2020 – 6/2022)

**KEYWORDS/AREAS OF INTEREST**

Cardiovascular disease, hypertension, mobile health, health IT, epidemiology, preventive medicine.

**SUMMARY OF PROFESSIONAL ACTIVITIES- OVERALL**

I am an early career physician scientist at the University of Vermont. As a general internist, I am interested in the primary prevention of chronic disease, with a specific focus on cardiovascular disease. To this end, I have several complimentary projects and roles. I am a member of the Laboratory for Clinical Biochemistry Research (LCBR) and the REasons for Geographic And Racial Differences in Stroke (REGARDS) cohort study. I am completing several projects to identify the underpinnings of incident hypertension. I also collaborate with colleagues within UVM and at other institutions to use open databases to identify risk factors for cardiovascular disease events. My clinical work focuses on primary and secondary prevention of venous and arterial thrombosis in the Thrombosis and Hemostasis Program clinic within the Division of Hematology in the Vermont Cancer Center (1 day/week). I also practice general internal medicine on the internal medicine hospitalist service (1-2 nights/month). My internal service within UVM includes search committee work for non-malignant hematology positions within our clinic and membership in the Cardiovascular Research Institute Early Career Advisory Committee. Nationally, I lead the Mobile Health Interest Group for the Society of General Internal Medicine and am a member of several committees within the American Heart Association Epidemiology council. Finally, my teaching responsibilities include online mentorship of associate and deputy editors on Wiki Journal Club, for which I am editor-in-chief. I also teach medical students and residents on the internal medicine hospitalist service and in hematology clinic. I participate as faculty in the UGME Attacks & Defenses course and Convergence courses, leading small groups. Finally, I mentor UVM medical students and cardiology fellows on research projects. These research, clinical, service, and teaching efforts will help establish me as an independent physician scientist with interest in primary prevention of cardiovascular disease.

**SUMMARY OF ACCOMPLISHMENTS**

*Updated 1/2020*

- Manuscripts: 14 total, 8 as first or co-first author  
(<https://www.ncbi.nlm.nih.gov/myncbi/timothy.plante.1/bibliography/public/>)
- H index: 6 (<https://scholar.google.com/citations?user=oVRqKukAAAAJ&hl=en>)
- Cumulative citations: 178
- Grants as PI: 1
- Education and mentoring of medical students and cardiology fellows in clinical research projects.

**PROFESSIONAL SERVICE**

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DEPARTMENTAL SERVICE

2019 Search Committee, Hematologist

COLLEGE SERVICE

2017- Active Learning Research Team, Member

2018- Cardiovascular Research Institute of Vermont (CVRI) Early Career Advisory Committee

2020 Vermont Lung Center pilot grant reviewer

2020- TriNetX Rollout Committee, Member

MEDICAL CENTER SERVICE

2018- Thrombosis and Hemostasis Program stroke conference, Coordinator

UNIVERSITY SERVICE

2018- Hit Paws Co-ed A Cappella Group, Faculty Advisor

GOVERNMENT

None to date.

SOCIETY MEMBERSHIPS

- 2014- Society of General Internal Medicine
- 2015- American Heart Association
- 2017- North American Society on Thrombosis and Hemostasis
- 2017- Hemostasis & Thrombosis Research Society
- 2017- International Society on Thrombosis and Haemostasis

SERVICE TO PROFESSIONAL ORGANIZATIONS

*Society of General Internal Medicine*

- 2016-Present Leader, Mobile Health Interest Group
- 2018-Present Abstract reviewer for Society New England Conference and National Conference

*American Heart Association*

- 2018- Member, Membership & Communications Committee, Council on Epidemiology and Prevention
- 2018- Member, Scientific & Clinical Education Lifelong Learning Committee, Council on Epidemiology and Prevention
- 2018- Abstract reviewer for AHA Epidemiology and Prevention | Lifestyle and Cardiometabolic Health Scientific sessions
- 2018- Abstract reviewer for AHA Scientific Sessions

*American Medical Association*

- 2020- Member, Validated Device Listings group, which oversees [validatebp.org](http://validatebp.org)

SERVICE TO PROFESSIONAL PUBLICATIONS

Ad-hoc Peer Reviewer:

- Journal of Medical Internet Research
- American Journal of Kidney Disease
- Canadian Medical Association Journal
- Research and Practice in Thrombosis and Haemostasis
- Annals of Internal Medicine
- American Journal of Hypertension
- Journal of Clinical Medicine
- Journal of Human Hypertension
- npj | Digital Medicine

Editor-in-chief, Wiki Journal Club

OTHER SERVICE

- 2020- REGARDS, P&P committee
- 2020 CVRI Viritis Montis research competition abstract reviewer
- 2020-2021 Member, DSMB for MET-Covid trial (PI: Carolyn Bramanti at UMN)

PUBLIC SERVICE

None to date.

SUMMARY OF SERVICE ACTIVITIES

I am a general internist seeing patients with venous and arterial thrombosis in the Thrombosis and Hemostasis Program Clinic in the Division of Hematology (1 day/week) and practicing hospitalist medicine on the General Internal Medicine Hospitalist Service (1-2 nights/week). I participate in local activities, including search committee work, in the Cardiovascular Research Institute Early Career Advisory Committee, and advising an undergrad a cappella group. I am involved in the Society of General Internal Medicine and the American Heart Association through direction of an interest group and committee work.

TEACHINGFORMAL SCHEDULED CLASSES

Year	Course title (at UVM except where specified)	Course required or elective	Hours	# of learners	Learner Level
2014	Argy Teaching Resident, Georgetown University School of Medicine	Required	20	15	MS3-4
2014-2017	Evidence-Based Medicine course, Johns Hopkins University	Elective	12	8	PGY-1 IM
2015-2017	Epidemiology course, Johns Hopkins University	Required	30	16	MS1
2015-2017	High Value Care course, Johns Hopkins University	Required	2	60	MS2
2015-2016	Transition to Wards, Johns Hopkins University	Required	2	6	MS2
2016	Teaching attending, Johns Hopkins Bayview Medical center	Required	80	8	MS3-4, PGY1-3
2019	Internal Medicine Half Day, lecture on cognitive biases	Required	1	30	PGY2-3
2019-	Attacks & Defenses small groups	Required	4	12	MS1
2019	Wiki Journal Club Approach, Guest Lecture for WikiMed course at Vanderbilt	Elective	6	1	MS3
2020	Convergence small group	Required	20	10	MS2
2020-	Cardiovascular, Respiratory, and Renal small groups	Required	8	8	MS2

CURRICULUM DEVELOPMENT

None to date.

POSTGRADUATE AND OTHER COURSES

None to date.

PREDOCTORAL STUDENTS SUPERVISED OR MENTORED

- Anna O'Kelly, MD MPhil – Supervised on analyses of a validation study of a blood

pressure-monitoring app during her MS4 year at Johns Hopkins School of Medicine (my 3<sup>rd</sup> year of post-doctoral training) and her intern year at Mass General Hospital (my 1<sup>st</sup> year of faculty at UVM).

- Kaitlyn Peper, MS2 – Supervised on mediation analysis of the role of the non-specific inflammatory marker C-reactive protein on the development of incident hypertension.
- Aneesh Singal, MS1 – Insulin and risk of incident hypertension in REGARDS as summer project between years 1 and 2.
- Charlie Nicoli, MS4 – Mentor on biostatistics and epidemiology at the LCBR in his projects in REGARDS. Dr. Nicoli won the 2020 Hopkins GIM House Staff Research Diane Becker Epidemiology Award for this work.

#### DISSERTATION/THESIS COMMITTEE MEMBERSHIP

- Nellie Stidham, Undergraduate Thesis Committee (2020)

#### POSTDOCTORAL FELLOWS AND RESIDENTS DIRECTLY SUPERVISED OR MENTORED

None

#### INFORMAL TEACHING

2012-present: Editor-in-Chief, Wiki Journal Club

I serve as the editor-in-chief for this collaborative medical reference project. I provide feedback on the critical review of reviews of impactful journal articles written by associate and deputy editors. These writers are primarily comprised of medical students and medical residents who are scattered across the globe.

#### FACULTY MENTORED

None

#### OTHER VISITING FACULTY SUPERVISED

None

#### TEACHING AIDS

2012-present: Editor-in-Chief, Wiki Journal club and Co-Developer of the Journal Club app  
 Along with a UVM classmate, I founded and have served as Editor-in-Chief for this online reference project. We provide structured reviews of landmark publications in medical literature. These reviews summarize publications, provide critical assessment of their quality, and integrate the findings into later clinical literature. The project is run on an unrestricted MediaWiki server, the same technology that powers Wikipedia. Any user with a registered account can provide content or edits to the website. After review by our senior editorial leadership, content is upgraded from *Incomplete* or *Reviewable* status to *Published* status if it meets our stringent review criteria. Most *Published* reviews are then pushed out to the Journal Club app, available on iTunes and the Google Play store for a nominal cost. The app consistently ranks among the most popular for-sale medical apps on both stores and is widely used internationally.

#### TEACHING AWARDS AND NOMINATIONS

2013, 2014: Nominee, String of Pearls Teaching Award  
 Department of Medicine, Georgetown University School of Medicine  
 Recognizing excellence in teaching medical students.

2014: Hugh H. Hussey Teaching Award  
 Georgetown University School of Medicine  
 Recognizing excellence in residency teaching.

2014: Top Resident Teacher Award, Internal Medicine

Department of Medicine, VCU School of Medicine, Inova Fairfax Campus

Recognizing excellence in teaching medical students at the Inova Fairfax hospital.

2014: Resident Teaching Award

Department of Medicine, Georgetown University School of Medicine

Recognizing excellence in peer education among Georgetown University residents, selected by peers.

2014: Resident of the Year

Department of Medicine, Inova Fairfax Hospital

Recognizing clinical and teaching excellence.

### SUMMARY OF TEACHING ACTIVITIES

My early interests in medical education were fostered during my time as an undergraduate medical student at UVM. I spent time developing digital online content for the COMET team, who later deployed a Blackboard-integrated wiki at the request of another classmate and myself. We leveraged this wiki as a collaborative learning and note-sharing platform for our class. This classmate and I later drew from this experience and developed the independent Wiki Journal Club platform and its related Journal Club apps. Both are widely used by students and house staff across the US and internationally. I now mentor associate and deputy editors at other institutions on the development of content.

At UVM, I teach on the hospitalist service and in the Thrombosis and Hematology Program/Hematology clinic. I am exploring opportunities to become involved in medical education as a new faculty member at UVM.

### RESEARCH AND SCHOLARLY ACTIVITIES

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#### RESEARCH AWARDS AND GRANTS

##### **Ongoing Research Support**

6 NU38OT000280-03-02 (Zakai)	9/01/2020 – 7/30/2021	0.6 Cal. mo.
CDC	\$1,400,000	

*Understanding risk factors and burden of COVID-19 related thrombosis and or bleeding complications*

High rates of thrombosis and bleeding have been reported in hospitalized COVID-19 patients leading to clinical uncertainty as to the benefit of anticoagulation. Pooling data from 9 hospital systems and over 10,000 hospitalized COVID-19 patients, we will determine the absolute and relative rates of thrombosis and bleeding in COVID-19 patients as well as the association of antithrombotic medications with outcomes.

Role: Co-investigator

R01HL141290 (Zakai)	5/15/2019 – 2/28/2023	1.44 Cal. mo.
NIH/NHLBI	\$446,833	

*Thrombosis and Bleeding Risk Assessment in Medical Inpatients*

Our goals in two complementary healthcare systems (located at the University of Vermont and the University of Washington), are to develop and validate robust models to assess hospital-acquired bleeding and VTE risk, and determine the period of increased risk for bleeding and VTE after discharge from the hospital. With these aims, we will make healthcare safer by allowing providers to tailor VTE prevention strategies to those at highest risk of VTE and lowest risk of bleeding.

Role: Co-investigator

U01NS041588 (Judd S; Howard G, Manley J, Cushman M,) 02/15/2018-03/31/2023 1.8 Cal. mo.

NIH - NINDS \$441,530

*VCID and Stroke in a Bi-Racial National Cohort*

Initiated in 2002, we are following 30,000 black and white adults for incident stroke, cognitive function, VCID and incident risk factors. We will study reasons for racial disparities in risk factor evolution over 10 years. I am a co-investigator and coordinate the reviews of new ancillary studies.

Role: Co-investigator

Loan Repayment Award (Plante) 10/1/2020-9/30/2022 0 Cal. mo.

NIH-NHLBI \$92,811

*Loan Repayment Award for project "The inflammatory basis of hypertension"*

As with the career development award above, this project will assess the role of inflammation on the development of hypertension. This proposal will provide significant remuneration for loan repayment to support these efforts.

Role: PI

Bloomfield Early Career Professor in Cardiovascular Research 7/1/2020 – 6/30/2022 0.6 Cal. mo.

UVM \$150,000

*The inflammatory basis of hypertension*

This named professorship provides funds to augment the planned K08 application, *The inflammatory basis of hypertension*. This project will extend on the existing REGARDS infrastructure to assess the role of novel inflammatory biomarkers in the development of hypertension.

Role: PI

### **Pending Research Support**

K08 9 Cal. mo.

NIH-NHLBI

*The inflammatory basis of hypertension*

This named professorship provides funds to augment the planned K08 application, *The inflammatory basis of hypertension*. This project will extend on the existing REGARDS infrastructure to assess the role of novel inflammatory biomarkers in the development of hypertension.

Role: PI

### **Completed Research Support**

U54 GM115516 (Rosen C, Stein G) 9/1/2018 – 6/30/2019 0.6 Cal. mo.

NIH – NIGMS \$140,816

*Hospital Utilization for Opioid Overdose: A Community Engaged Multidisciplinary Approach to Measure the Impact of Policy Change and Inform Interventions*

This project aims to leverage claims data and the RUDICA database to identify unintended consequences of opioid policy reform in Vermont and Maine. I am leading the RUDICA analysis.

Role: Subaward Co-investigator

U54 GM115516 (Rosen C, Stein G; MPIs) 01/1/2018 – 06/30/2019 0.12 Calendar Months  
NIH – NIGMS \$37,561

*Leveraging Health Records to Explain Rural Cardiovascular Disease Disparities*

The Rural/Urban Disparities in Cardiovascular Assessment (RUDICA) pilot project was selected by the Northern New England Clinical and Translational Research (NNE-CTR) network. The aims are to identify the reasons for a greater burden of cardiovascular disease in rural adults. We will merge a deidentified database of the electronic health records from the University of Vermont Health Network and MaineHealth to determine if cardiovascular burden is due to low levels of screening and management of known risk factors for cardiovascular disease. From these findings, we will formulate methods to address these disparities and reduce the burden of cardiovascular disease among rural adults.

Role: Subaward PI (Plante TB and Fairfield K (sub-PIs))

T32 HP10025B0 Segal J (PI) 07/01/2014 - 06/30/2016  
HRSA

*Institutional National Research Service Award*

I was recipient of this training award during my first two years of my post-doctoral fellowship at the Johns Hopkins University. I designed, implemented, analyzed, and published a validation study of the Instant Blood Pressure mobile application.

Role: Postdoctoral fellow

T32HL007180 Hill-Briggs F (MPIs) 07/01/2016 - 06/30/2017  
NIH - NHLBI

*Institutional National Research Service Award*

I was recipient of this training award during my third year of my post-doctoral fellowship at the Johns Hopkins University. I designed and implemented a secondary analysis of the SPRINT trial. I also designed and implemented a multifaceted digital intervention to augment traditional clinical trial recruitment using website design, social media advertisements, keyword search advertisements, and targeted patient portal recruitment messages.

Role: Postdoctoral fellow

**Selected Unfunded Grant Submissions**

(Arnett) 04/01/19 – 03/31/24 0.60 Calendar Months  
NIH \$70,248

*HEARTH: Home & Environment in the Appalachian Region: Trends in Health*

The proposed research would capture individual, family, and environmental risk factor data/measurements and a variety of biological and environmental samples for analysis of genetics, epigenetics, biomarkers of stress and disease, and environmental exposures. This will also enable family-based genetic studies and detailed assessments of between- vs. within-family dynamics in childhood and adult disease risk. (Role: Co-I)

U54 GM115516 (Rosen C, Stein G; MPIs) 0.12 Calendar Months  
NIH – NIGMS \$50,000

*Rural disparities in cancer screening*

This project will extend on the rhe Rural/Urban Disparities in Cardiovascular Assessment (RUDICA) pilot to assess rural disparities in cancer risk factors and in completion of screening.

Role: Coinvestigator (Wood M sub-PI)



Career Development Award

4 Calendar Months

American Heart Association – *17<sup>th</sup> percentile, not funded.*

*The inflammatory basis of hypertension*

This project will extend on the existing REGARDS infrastructure to assess the role of novel inflammatory biomarkers in the development of hypertension. This will involve a career development plan to provide me with distinct educational and training didactics to transition to an independent investigator.

Role: PI

Harold S. Geneen Charitable Trust

1/1/2021 – 12/31/2022

*Inflammation, Hypercoagulability, and Cardiac Injury in COVID-19*

Patients with COVID-19 frequently experience inflammation, hypercoagulability, and cardiac injury. Inflammation and hypercoagulability have a positive feedback loop and each process is associated with greater risk of cardiac injury. Whether therapeutic dosing of anticoagulation might lower inflammatory biomarkers and reduce cardiac injury is unknown. This project will measure key biomarkers of inflammation and cardiac injury in the RAPID COVID Coag trial, a multicenter trial that is randomizing hospitalized, non-ICU patients with COVID-19 to prophylactic or therapeutic dosing of anticoagulation, at baseline, 48 hours, and end of follow-up.

Role: PI

### **Research Awards and Honors**

2014: Jerry I. Cherner Research Achievement Award in Resident Clinical Research Award  
Department of Medicine, Georgetown University School of Medicine  
Recognizing excellence in residency research.

2016: W. Leigh Thompson Excellence in Research Award  
Department of Medicine, Johns Hopkins University School of Medicine  
Recognizing excellence in postdoctoral clinical research.

2016: Anna Huffstutler Stiles Scholarship  
Department of Epidemiology, Johns Hopkins Bloomberg School of Public Health  
Recognizing innovative thesis research.

2016: Best of AHA Specialty Conferences: EPI/LIFESTYLE 2016  
AHA Scientific Sessions, New Orleans, LA  
Invited poster presentation recognizing a top-rated abstract at a specialty conference.

2018: Nominee, Dean's Rising Star New Investigator Award  
Larner College of Medicine at the University of Vermont  
Recognizing research excellence among assistant professors at UVM

### **SCHOLARSHIP**

Complete List of Published Work in PubMed:

<https://www.ncbi.nlm.nih.gov/sites/myncbi/timothy.plante.1/bibliography/55084793/public/?sort=date&direction=ascending>

**Peer Reviewed Publications**Original Research

1. **Plante TB**, Urrea B, MacFarlane ZT, Blumenthal RS, Miller ER, Appel LJ, Martin SS. Validation of the Instant Blood Pressure smartphone app. *JAMA Intern Med.* 2016; 176(5):700-702. PMID: PMC6550164
2. Juraschek SP, **Plante TB**, Charleston J, Miller ER, Yeh HS, Appel LJ, Jerome GJ, Gayles D, Durkin N, White K, Dalcin A, Hermosilla M. Use of online recruitment strategies in a randomized trial of cancer survivors. *Clinical Trials.* 2018; 15(2):130-138. PMID: PMC5891380
3. **Plante TB**, O'Kelly AC, Macfarlane ZT, Urrea B, Appel LJ, Miller ER, Blumenthal RS, Martin SS. Trends in user ratings and reviews of a popular yet inaccurate blood pressure-measuring smartphone app. *J Am Med Inform Assoc.* 2018;25(8):1074-1079. PMID: PMC6664848
4. **Plante TB**, O'Kelly AC, Urrea B, MacFarlane ZT, Blumenthal RS, Charleston J, Miller ER, Appel LJ, Martin SS. User experience of Instant Blood Pressure: Exploring reasons for the popularity of an inaccurate mobile health app. *npj Digital Medicine.* 2018;3(1). PMID: PMC6550164
5. **Plante TB**, Juraschek SP, Miller ER, Appel LJ, Cushman M, Littenberg B. Comparison of frequency of atherosclerotic cardiovascular and safety events with systolic blood pressure <120 mm Hg versus 135-139 mm Hg in a SPRINT primary prevention subgroup. *Am J Cardiol.* 2018;122(7):1185-1190. PMID: 30115425
6. **Plante TB**, O'Kelly AC, Urrea B, Macfarlane Z, Appel LJ, Miller ER, Blumenthal RS, Martin SS. Auralife Instant Blood Pressure app in measuring Resting heart rate: Validation study. *JMIR: Biomedical Engineering.* 2018;3(1)e11057. <http://doi.org/10.2196/11057>
7. Michos ED, Mitchell CM, Miller ER, Sternberg AL, Juraschek SP, Schrack JA, Szanton SL, Walston JD, Kalyani RR, **Plante TB**, Christenson RH, Shade D, Tonascia J, Roth DL, Appel LJ, for the STURDY Collaborative Research Group. Rationale and design of the Study to Understand Fall Reduction and vitamin D in You (STURDY): A randomized clinical trial of vitamin D supplement doses for the prevention of falls in older adults. *Contemporary Clinical Trials.* 2018;73:111-122. PMID: PMC6251709
8. Jaeger BC, Anstey DE, Bress AP, Booth JN, Butler M, Clark D, Howard G, Kalinoski J, Long DL, Ogedegbe G, **Plante TB**, Shimbo D, Sims M, Supiano MA, Whelton PK, Muntner P. Cardiovascular disease events and mortality in older adults according to the antihypertensive treatment recommendation in the ACC/AHA and ACP/AAFP guidelines. *Hypertension.* 2019;73:327-334. PMID: PMC6392064
9. **Plante TB**, Gleason KT, Miller HN, Charleston J, McArthur K, Dennison Himmelfarb C, Lazo M, Ford DE, Miller ER III, Appel LJ, and Juraschek SP for the STURDY Collaborative Research Group. Recruitment of trial participants through electronic medical record patient portal messaging: A pilot study. *Clinical Trials.* 2020 Feb;17(1):30-38. PMID: 31581836 PMID: PMC6992491
10. **Plante TB**, Juraschek SP, Zakai NA, Tracy RP, Cushman M. Comparison of Frequency of Atherosclerotic Cardiovascular Disease Events Among Primary and Secondary Prevention Subgroups of the Systolic Blood Pressure Intervention Trial. *Am J Cardiol.* 2019 Dec 1;124(11):1701-1706. PMID: 31575423 PMID: PMC7240131
11. Miller HN, Gleason KT, Juraschek SP, **Plante TB**, Lewis-Land C, Woods B, Appel LJ, Ford DE, Dennison Himmelfarb CR. Electronic medical record-based cohort selection and direct-to-patient, targeted recruitment: early efficacy and lessons learned. *J Am Med Inform Assoc.* 2019 Nov 1;26(11):1209-1217. doi: 10.1093/jamia/ocz168. PMID:

- 31553434; PMCID: PMC6798572
12. Silverman D\*, **Plante TB\***, Infeld M, Juraschek SP, Dougherty GB, Meyer M.. Association of  $\beta$ -blocker use with heart failure hospitalizations and cardiovascular disease mortality among patients with heart failure with a preserved ejection fraction: A secondary analysis of the TOPCAT trial. *JAMA Network Open*: 2019;2(12):e1916598. PMID: 31800067 (\*Co-first authors.)
  13. Shan R, Ding J, **Plante TB**, Martin SS. Mobile Health Access and Use Among Individuals With or At Risk for Cardiovascular Disease: 2018 Health Information National Trends Survey (HINTS). *J Am Heart Assoc*. 2019;8(24):e014390. PMID: 31818220
  14. Juraschek SP, Taylor AA, Evans GW, Townsend RR, Miller ER III, **Plante TB**, Cushman WC, Gure TR, Haley WE, Moinuddin I, Nord J, Oparil S, Pedley C, Roumie CL, Whittle J, Wiggers A, Finucane C, Kenny RA, Appel LJ, Wright JT Jr. Orthostatic Hypotension, Cardiovascular Outcomes, and Adverse Events: Results from SPRINT. *Hypertension*: 2020; 75(3):660-667. PMCID: PMC7261502.
  15. Colantonio LD, Saag KG, Singh JA, Chen L, Reynolds RJ, Gaffo A, **Plante TB**, Curtis JR, Bridges Jr SL, Levitan EB, Chaudhary NS, Howard G, Safford MM, Muntner P, Irvin MR. Gout is associated with an increased risk for incident heart failure among older adults: the REasons for Geographic And Racial Differences in Stroke (REGARDS) cohort study. *Arthritis Research & Therapy*. 2020;22(1):86. PMCID: PMC7164141
  16. **Plante TB**, Koh I, Judd SE, Howard G, Howard VJ, Zakai NA, Booth JN 3<sup>rd</sup>, Safford M, Muntner P, Cushman M. Life's Simple 7 and Incident Hypertension: The REasons for Geographic and Racial Differences in Stroke (REGARDS) Study. *J. Am. Heart Assoc*. 2020; 9(19):e016482. PMCID: PMC7261502.
  17. Miller HN, Charleston J, Wu B, Gleason K, Dennison Himmelfarb CR, Ford DE, **Plante TB**, Gelber AC, Appel LJ, Miller EP 3<sup>rd</sup>, Juraschek SP. Use of electronic recruitment methods in a clinical trial of adults with gout. *Clinical Trials*. 2020. Sep 15:1740774520956969. PMID: 32933342
  18. Appel LJ, Michos ED, Mitchell CM, Blackford AL, Sternberg AL, Miller ER III, Juraschek SP, Schrack JA, Szanton SL, Charleston J, Minotti M, Baksh SN, Christenson RH, Coresh J, Drye LT, Guralnik JM, Kalyani RR, **Plante TB**, Shade DM, Roth DL, and Tonascia J for the STURDY Collaborative Research Group. The Effects of Four Doses of Vitamin D Supplements on Falls in Older Adults: A Response-Adaptive, Randomized Clinical Trial. *Ann Intern Med*. 2020. E-pub Dec 8 2020. PMID: 33284677.
  19. **Plante TB**, Blau AM, Berg AN, Weinberg AS, Jun IC, Tapson VF, Kanigan TS, Adib AB. Development and External Validation of a Machine Learning Tool to Rule Out COVID-19 Among Adults in the Emergency Department Using Routine Blood Tests: A Large, Multicenter, Real-World Study. *J Med Internet Res* 2020;22(12):e24048. PMCID: PMC7713695
  20. **Plante TB**, Long DL, Guo B, Howard G, Carson AP, Howard VJ, Judd SE, Jenny NS, Zakai NA, Cushman M. Elevated C-reactive protein and differences in hypertension incidence between black and white Americans: The REasons for Geographic And Racial Differences in Stroke (REGARDS) study. *Am J Hypertension*. 2020. E-pub Dec 16, 2020. PMID: 33326556.
  21. Nicoli CD, **Plante TB**, Long DL, Judd SE, McClure LA, Arora P, Cushman M. N-Terminal Pro-B-Type Natriuretic Peptide and Longitudinal Risk of Hypertension. *American Journal of Hypertension*. E-published Dec 30,2020. PMID: 33378421.
  22. Nwokeji U, Spaulding EM, Shan R, Turkson-Ocran RA, Baptiste D, Koirala B, **Plante TB**, Martin SS, Commodore-Mensah Y. Health Information Technology Use among

Persons with Self-Reported Atherosclerotic Cardiovascular Disease: An analysis of the 2011-2018 National Health Interview Survey. *J Med Internet Res*. 2021. Accepted.

23. Harder VS, **Plante TB**, Koh I, Rogers EB, Varni SE, Villanti AC, Brooklyn JR, Fairfield KM. Influence of opioid prescription policy on overdoses and related adverse effects in a primary care population. *J Gen Intern Med*. 2021. Accepted.

### Original Research in Review

- Harder VS, Varni SE, Murray KA, **Plante TB**, Villanti AC, Wolfson DL, Maruti S, Fairfield KM. Prescription Opioid Policies and Associations with Opioid Overdose and Related Adverse Effects. In review.
- Colantonio L, Reynolds R, Merriman T, Gaffo A, Singh J, **Plante TB**, Soliman E, Curtis J, Bridges S, Howard G, Safford M, Saag K, Muntner P, Irvin M. Higher serum urate levels are associated with an increased risk for sudden cardiac death in the REasons for Geographic And Racial Differences in Stroke (REGARDS) study. In review.
- Silverman DN, Lavallaz JDF, **Plante TB**, Infeld MM, Goyal P, Juraschek SP, Dougherty GB, Callas PW, Meyer M. Beta-blocker Use in Hypertension is Associated with Heart Failure - A Secondary Analysis of the Systolic Blood Pressure Intervention Trial (SPRINT). In review.
- Koh I... **Plante TB** ... et al. Association between Neighborhood Income and Hypertension Incidence is Strong at a Small Spatial Scale in the Reasons for Geographic and Racial Differences in Stroke study. Submitted.
- Prasanna A, Miller HN, Wu Y, Peeler A, Ogungbe O, Plante TB, Juraschek SP. Recruitment of Black adults into cardiovascular disease trials. Submitted.

### **Non-Peer Reviewed Publications**

#### Letters

1. **Plante TB**, Kane SP, Iberri DI, and Majure D. Clinical evidence summary apps: Definition, role, and unknown about a novel medical content delivery genre. *Journal of Graduate Medical Education*. 2014;6(4):791. <https://doi.org/10.4300/JGME-D-14-00407>
2. **Plante TB**, Appel LJ, Martin SS. Author response to: Critical flaw with the Plante et al. Instant Blood Pressure Study: A letter from the app developers. *JAMA Internal Medicine*. 2016;176(9):1410-1411. <https://doi.org/10.1001/jamainternmed.2016.4765>
3. **Plante TB** and Martin SS. Wearable Technology and Long-term Weight Loss. *JAMA*. 2017; 317(3):318-319. <https://doi.org/10.1001/jama.2016.19265>
4. Van Helmond N, **Plante TB**, and Joseph JJ. Blood pressure measurement validation off the cuff? *J Med Internet Res*: 2018;20(10):e10089. <http://dx.doi.org/10.2196/10089>
5. Van Helmond N, Martin SS, **Plante TB**. Is cuffless blood pressure measurement already here? *Journal of Hypertension*. 2020;38(4):744-775. PMID: 32132434.
6. **Plante TB**, Koh I, Wilcock AD. Concordance of rural identity and ZIP code-linked Rural-Urban Commuting Area (RUCA) code. *The Journal of Rural Health*. 2020;36:143-144. PMID: 32216155.

#### Editorials

1. **Plante TB**, Iberri DJ, Coderre EL. Building a modern journal club: The Wiki Journal Club experience. *Journal of Graduate Medical Education*. 2015;7(3):341-343. <https://doi.org/10.4300/JGME-D-14-00488.1>
2. **Plante TB**, Cushman M. Choosing color palettes for scientific figures. *Research and*

- Practice in Thrombosis and Haemostasis. 2020;00:1-5. <https://doi.org/10.1002/rth2.12308>
- van Helmond N, Day W, Martin SS, **Plante TB**. Cuff-less, personal, ambulatory blood pressure devices and disruption of existing blood pressure measurement paradigms. *American Journal of Hypertension*. 2020;33(9):813-815. PMID: 32928039
  - van Helmond N and **Plante TB**. Cuff-less blood pressure measurement with pulse transit time: the importance of rigorous assessment. *Journal of Clinical Hypertension*. 2020; E-published Dec 12, 2020. PMID: 33314569. (Invited.)

### Review Articles

- Urrea B, Misra S, **Plante TB**, Kelli HM, Misra S, Blaha MJ, Martin SS. Mobile health initiatives to improve outcomes in primary prevention of cardiovascular disease. *Current Treatment Options in Cardiovascular Medicine*. 2015;17(12):59. <https://doi.org/10.1007/s11936-015-0417-7> (Invited)
- DeBarmore B, Pandey A, **Plante TB**, Wilner B, Rohm Young D, and Matthews AT. Highlights: AHA's EPI|Lifestyle 2018 Scientific Sessions. *JAHA*. 2018;7(13):e09313. <https://doi.org/10.1161/JAHA.118.009313> (Invited)

### Books and Chapters

None

### Other Scholarly Publications

- Plante TB** and Martin SS. App Review: The ACC-AHA ASCVD Risk Estimator. *Practical Cardiology*. April 2016. <http://practicalcardiology.modernmedicine.com/practical-cardiology/news/app-review-acc-aha-ascvd-risk-estimator>
- Plante TB** and Martin SS. How to pick your next health app. *US News and World Report Health Blog*. April 2016. <http://health.usnews.com/health-news/patient-advice/articles/2016-04-28/how-to-pick-your-next-health-app>
- Plante TB** and Martin SS. App Review: QuitGuide. *Practical Cardiology*. May 2016. <http://practicalcardiology.modernmedicine.com/practical-cardiology/news/app-review-month-quitguide>
- Plante TB** and Martin SS. App Review: Journal Club. *Practical Cardiology*. July 2016. <http://practicalcardiology.modernmedicine.com/practical-cardiology/news/app-month-journal-club>
- Plante TB** and Martin SS. App Review: ACS Trials. *Practical Cardiology*. August 2016. <http://practicalcardiology.modernmedicine.com/practical-cardiology/news/cardio-app-month-acs-trials>
- Plante TB**. How to reclaim boredom from your smartphone. *Closler*. April 2018. <http://closler.org/lifelong-learning-in-clinical-excellence/how-to-reclaim-boredom-from-your-smartphone>

### **Abstracts**

- Trotman W, Madden M, **Plante TB**, Clay M, Mcilree C, and Bovill E. CADM1 plays a potentially important role in maintaining endothelial barrier function: Dynamic and selective expression of CADM1 in endothelial cells. *Poster presentation*. Leducq International Network Against Thrombosis, Leuven, Belgium. May 2009.
- Plante TB** and Fung M. Challenges identified with Blood Bank ordering and documentation from an academic institution undergoing transition to an electronic health

- record (EHR). *Poster presentation*. Academy of Clinical Laboratory Physicians and Scientists, Nashville, TN. June 2010.
3. **Plante TB** and Littenberg B. Low-density lipoprotein cholesterol versus non-high density lipoprotein cholesterol in predicting mortality. *Oral presentation*. Society of General Internal Medicine of New England, Boston, MA, March 2011.
  4. **Plante TB**. Wiki Journal Club and Journal Club for iPhone/Android. *Oral presentation*. Georgetown General Internal Medicine Educational Conference. Georgetown University Hospital, Washington, DC, April 2014
  5. **Plante TB**, Iberri DJ, Coderre EL, and Montero A. Patterns of visitation to a medical reference website from Google searches. *Poster presentation*. Society of General Internal Medicine National Conference. San Diego, CA. April 2014.
  6. **Plante TB** and Maruthur N. Journal Club mobile app usage in developing and developed countries. *Poster presentation*. Society of General Internal Medicine National Conference. Toronto, ON. April 2015.
  7. **Plante TB**, Urrea B, MacFarlane ZT, Blumenthal RS, Miller ER, Appel LJ, Martin SS. Validation of the Instant Blood Pressure smartphone application (app). *Oral presentation, plenary*. American Heart Association Epidemiology. Phoenix, AZ. March 2016.
  8. **Plante TB**, O’Kelly AC, Misra S, Urrea B, Martin SS. Differences in expected and reported systolic blood pressure measurements and user experience from a popular, inaccurate smartphone blood pressure application. *Poster presentation*. Society of General Internal Medicine National Conference. Hollywood, FL. May 2016.
  9. **Plante TB**, O’Kelly AC, Misra S, Urrea B, Martin SS, Chander G. Trends in user ratings and reviews of a popular yet inaccurate blood pressure smartphone application. *Poster presentation*. Society of General Internal Medicine National Conference. Hollywood, FL. May 2016.
  10. **Plante TB** and Juraschek SP. 10 year ASCVD risk and incident ASCVD in the Systolic Blood Pressure Intervention Trial (SPRINT). *Poster presentation*. Washington, DC. SGIM 2017.
  11. **Plante TB**, Long DL, Howard G, Carson AP, Howard VJ, Judd SE, Jenny NS, Zakai NS, and Cushman M. Contribution of C-Reactive Protein to Racial Disparities in Incident Hypertension: The REasons for Geographic And Racial Differences in Stroke Study (REGARDS). *Poster presentation*. New Orleans, LA. AHA Epidemiology/Lifestyles 2018.
  12. **Plante TB**, Juraschek SP, Gleason K, Charleston J, McArthur K, Dennison-Himmelfarb C, Lazo-Elizondo M, Ford DE, Miller ER III, Appel LJ. Recruitment of Seniors to a Randomized Controlled Trial using Electronic Health Record-Enabled Patient Portal Recruitment Messages. *Poster presentation*. Denver, CO. SGIM 2018.
  13. **Plante TB**, Koh I, Judd SE, Howard G, Howard VJ, Zakai NA, Booth JN III, Safford M, Muntner P, Cushman M. Optimal Life’s Simple 7 Metric and Incident Hypertension in the REasons for Geographic And Racial Disparities in Stroke study. *Poster presentation*. AHA Scientific Sessions. Chicago, IL. 2018.
  14. **Plante TB**, Juraschek SP, Zakai NA, Tracy RP, Cushman M. The Pooled Cohort Equation for estimating risk in primary and secondary prevention populations. *Poster presentation*. AHA Epidemiology/Lifestyles 2019.
  15. **Plante TB**, Koh I, Plante DA, Ferguson DW, Zakai NA, Fairfield KM. Mortality among Northern new England adults by rurality status. *Poster presentation*. SGIM 2019, Washington DC.

16. **Plante TB**, Koh I, Fairfield KM, Villanti AC, Harder VS. Opioid overdoses before and after prescription policy reform in Northern New England. *Poster presentation*. SGIM 2019, Washington, DC.
17. Silverman DN, **Plante TB**, Infeld MI, Juraschek SP, Dougherty G, Meyer MF. Do beta-blockers increase the risk for hospitalizations in heart failure with preserved ejection fraction? A secondary analysis of beta-blocker use in the TOPCAT trial. *Poster presentation*. ESC 2019.
18. Shan R, Ding J, **Plante TB**, Martin SS. Mobile Health Access and Use Among Individuals With or At Risk for Cardiovascular Disease: 2018 Health Information National Trends Survey (HINTS). *Poster presentation*. AHA Fall Sessions 2019.

### **Patents Issued or Pending**

None

### **Other Creative Activities**

None

### **Quality Improvement and Patient Safety Activities**

None

### SUMMARY OF SCHOLARLY ACTIVITIES

Cardiovascular disease is the leading killer of adults in the United States. I am interested in extending understanding of primary prevention of these conditions. To identify deficiencies in practice patterns among rural primary care patients, I received pilot funding from the Northern New England Clinical & Translational Research Network (NNE-CTR) to establish the Rural/Urban Disparities In Cardiovascular Assessment (RUDICA) Study. RUDICA leverages patient-level electronic medical record data from ~250,000 primary care patients in Vermont (UVMHC affiliates) and Maine (Maine Medical Center affiliates). This project aims to identify deficiencies in cardiovascular risk factor management adversely affecting rural primary care patients. Future projects will develop and test interventions to improve cardiovascular risk factor management among these populations. I am also a member of the NIH-funded REasons for Geographic And Racial Differences in Stroke (REGARDS) cohort study and am using this resource to identify the role of inflammation in the development of hypertension.

### INVITED PRESENTATIONS

#### **Regional**

1. Hunter M, Plante TB, and Jemison J. The Consortium on Medical Education and Technology (COMET). Panelist. American Association of Medical Colleges Group on Information Resources, Burlington, VT. 2008.
2. Plante TB, Chretien K, Desai S, and Brown S. The Next Generation's Information and Knowledge Needs. Panel. US BMJ Annual Meeting, Washington, DC, February 2014.
3. Plante TB. Patterns of visitation to a medical reference website from Google searches. Georgetown Internal Medicine Grand Rounds. Washington, DC. May 2014.
4. Plante TB. Validation of the Instant Blood Pressure smartphone application (app). Virginia Hospital Center Medicine Grand Rounds. Arlington, VA. March 2016.
5. Plante TB. Rural disparities in cardiovascular disease risk assessment: The RUDICA project. Medicine Grand Rounds, Larner College of Medicine at the University of Vermont. Burlington, VT. May 2019.
6. Plante TB. Rural disparities in cardiovascular disease risk assessment: The RUDICA project. NNE-CTR annual meeting. Burlington, VT. July 2019.
7. Plante TB. Rural disparities in cardiovascular disease risk assessment: The RUDICA

- project. North East Regional IDeA Conference 2019. Bretton Woods, NH. August 2019.
8. Plante TB. Recruitment of trial participants through electronic medical record patient portal messaging: A pilot study. UVM Center for Translational Science seminar. Burlington, VT. November 2019.
  9. Plante TB. Rural disparities in cardiovascular disease risk assessment: The RUDICA project. Vermont Vascular Medicine Conference. Burlington, VT. December 2019.

### **National**

1. Plante TB, Krolick K, Otsuki J, Gross N, and Manwell-Jackson A. Perspectives on the Future of Medical Education. Keynote panelist. American Association of Medical Colleges Group on Information Resources, Atlanta, GA. April 2009.
2. Plante TB, Urrea B, MacFarlane ZT, Blumenthal RS, Miller ER, Appel LJ, Martin SS. Validation of the Instant Blood Pressure smartphone application (app). Poster presentation, best in category. AHA Scientific Sessions. New Orleans, LA 2016.
3. Plante TB. Blood pressure management version 2.0: Caveat emptor: Potential pitfalls with new technology. National Kidney Foundation Annual Meeting. Orlando, FL. April 2017.
4. Plante TB. Validation of the Instant Blood Pressure Smartphone App. Maine Medical Center, Department of Medicine Grand Rounds. Portland, ME. October 2018.
5. Plante TB. Validation of the Instant Blood Pressure Smartphone App. Mobile and Electronic Health ARC Monthly Seminar, Boston University. Boston, MA. November 2018.
6. Plante TB. Wiki Journal Club. WikiMed course. Vanderbilt University School of Medicine. Nashville, TN via Zoom. October 2019.
7. Plante TB. The Instant Blood Pressure validation study. Georgetown University Department of Medicine Grand Rounds. January 2020.

### **International**

1. Plante TB. Environmental Contributors to Hypertension. American Heart Association Hypertension Scientific Sessions. New Orleans, LA (moved online because of COVID-19). September 2020.