

SALIM S. HAYEK, MD, FAHA, FACC

Professor and Chair, Department of Internal Medicine · Edward Randall and Edward Randall Jr. Distinguished
Chair in Internal Medicine

University of Texas Medical Branch, Galveston, Texas

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SUMMARY

I am a cardiologist, NIH-funded physician-scientist, and physician executive. My work centers on care model design, physician compensation, and the practical integration of artificial intelligence into clinical operations. I chair the Department of Internal Medicine at the University of Texas Medical Branch, the institution's largest clinical department, spanning 11 divisions and more than 300 faculty, advanced practice providers and staff. In two years as Chair, I have recruited seven division chiefs and more than 100 faculty and advanced practice providers, rebuilt medical oncology and hematology into a UTMB-owned division, grown departmental visit volume 10.5 percent year over year, and led the department to the highest faculty engagement at UTMB, 82 percent on the AAMC StandPoint survey. As UTMB's inaugural Vice President and Chief Transformation Officer from 2024 to 2026, I established the institution's artificial intelligence strategy and built the governance and enterprise partnerships that now execute it. Previously, I served as Medical Director of the University of Michigan's Frankel Cardiovascular Center Clinics, the largest multidisciplinary clinic in Michigan Medicine.

My leadership philosophy is three words: trust, transparency, and accountability, in that order, because accountability cannot be asked of people before the first two are earned. Clinicians and scientists stay where they are trusted, where they belong, and where someone invests in what they are becoming; that culture is not built in town halls but one conversation at a time, by leaders who hold ownership rather than titles and have real authority to act. Transformation succeeds when people are told honestly what is broken, shown what will not change, and given proof that the goal is to elevate their work rather than replace it. The operational discipline serves those ends: deploying every team member at the top of their scope, replacing one-off fixes with systems that outlast the initiative that created them, standardizing what should be standard so that judgment is reserved for what genuinely requires it, and using artificial intelligence as leverage on that work rather than as an end in itself.

My research is bench-to-bedside translational science. I study the inflammatory mechanisms linking kidney and cardiovascular disease, and the use of novel biomarkers and high-throughput technologies such as proteomics for risk prediction, personalization of therapy, and prevention. That work has been continuously funded by the NIH and has produced a body of evidence on soluble urokinase plasminogen activator receptor as a circulating risk factor across organ systems. I have authored 225 peer-reviewed publications, cited more than 28,000 times, with an h-index of 63, and was elected to the American Society for Clinical Investigation in 2026.

EMPLOYMENT HISTORY

03/2024-YTD **University of Texas Medical Branch**, Galveston TX

- 05/2024-YTD *Chair, Department of Internal Medicine*
- 03/2024-YTD *Professor, Department of Internal Medicine – Tenured*
- 03/2024-03/2026 *Vice President, Chief Transformation Officer*

2018-YTD **University of Michigan**, Ann Arbor MI

- 2024-YTD *Adjunct Professor, Department of Internal Medicine*
- 2024 *Director of Research Development Core, UM George O'Brien Kidney Translational Resource Center*
- 2024 *Senior Advisor to Cohort Development, UM Precision Health*
- 2022-2024 *Associate Director, UM Precision Health*
- 2020-2024 *Medical Director, Frankel Cardiovascular Center Clinics*
- 2018-2024 *Associate Professor, Department of Internal Medicine – Tenured*

EDUCATION AND TRAINING

12/2023 **University of Michigan**, Ann Arbor MI

Michigan Medicine Leadership Academy

09/2013-07/2018 **Emory University School of Medicine**, Atlanta GA

Cardiology Fellowship – Clinical Investigator Track, mentored by Dr. Arsbed Quyyumi

09/2010-09/2013 **Emory University School of Medicine**, Atlanta GA

Internal Medicine Residency

08/2008-09/2010 **University of Ottawa**, Ottawa ON

Postdoctoral Fellowship in Cardiac Development and Differentiation, mentored by Dr. Mona Nemer

02/2002-07/2008 **American University of Beirut**, Beirut LB

Doctor of Medicine, Dean's honor list, Penrose Award nomination · Bachelor of Science in Biology, Distinction

INSTITUTIONAL LEADERSHIP

Chair, Department of Internal Medicine

University of Texas Medical Branch · Galveston, Texas · 05/2024-YTD

UTMB's largest clinical department: 11 divisions and more than 300 faculty, advanced practice providers and staff, the institution's primary engine of clinical volume, graduate medical education and subspecialty expertise.

- Recruited seven Division Chiefs and more than 100 faculty and advanced practice providers in two years.
- Created a customized leadership development and coaching program for division chiefs to build bench strength and enable succession.
- Rebuilt medical oncology and hematology from an externally staffed affiliation into a UTMB-owned division, going from no UTMB-employed oncologists to a division chief, six clinical faculty and two advanced practice providers within a year.
- Relocated the oncology clinic, restarted the chemotherapy infusion center, brought tumor board accreditation in-house, revitalized the fellowship and launched cellular therapy and transplant services, positioning the cancer service line toward eventual NCI designation.
- Established cardio-oncology services at UTMB, giving the cancer program dedicated cardiovascular care for patients on cardiotoxic therapy.
- Standardized clinic templates and scheduling across all 11 divisions with dedicated new-patient slots, taking the most constrained service from a median new-patient lag of more than 90 days to under 48 hours.
- Designed and deployed AI-enabled referral triage to ensure the right patient reaches the right provider, at the right time, and through the right modality: specialty-specific playbooks, now spanning six services, review the full Epic and Care Everywhere record and return an auditable disposition to a named physician, advanced practice provider or clinic.
- Grew departmental visit volume 10.5 percent year over year, 11,411 additional visits with nine of ten divisions growing, by realigning the deployment of physicians and advanced practice providers.
- Launched an endoscopy volume improvement plan that grew procedure volume 35 percent year over year, through weekend sessions and weekday workflow redesign.
- Created the department's Leader Compensation Plan and Strategic Incentive Plan to align leadership and faculty incentives with departmental goals.
- Redesigned departmental governance, flattening to five non-overlapping Vice Chairs reporting directly to the Chair.
- Established a matrixed Division of Biomedical Research for the department's physician-scientists and research faculty.
- Authored and launched the department's strategic plan, "Moving Medicine Forward," built on clinical, research, education and operations pillars and six guiding principles: transparency and integrity, rewarding excellence, excellence in patient care, maximizing value and impact, building careers, and thriving as one team.

- Rebuilt departmental culture around those principles and transparent leadership, producing the highest faculty job satisfaction at UTMB: 82 percent on the AAMC StandPoint Faculty Engagement Survey, seven points above the national academic cohort.

Vice President and Chief Transformation Officer

University of Texas Medical Branch · Galveston, Texas · 03/2024-03/2026

Inaugural holder of the role, created in 2024 as an enterprise seat on the President's Executive Council, charged with planning and implementing systemic transformation across UTMB's health system and academic enterprise.

- Established UTMB's institutional artificial intelligence strategy, presented to the President's Executive Council and built on seven pillars spanning care pathways, workflow standardization, national consortia, administrative burden, enterprise AI expertise, data accessibility, and AI safety and liability.
- Built the governance to execute it, establishing the AI Steering Committee, AI Core Engineering Group and AI Design and Translation Committee with an institutional AI policy and training site, and creating the role of the institution's first Chief AI Officer.
- Established the enterprise AI partnerships with Qualified Health and Bunkerhill Health that underpin UTMB's clinical AI deployment.
- Deployed ambient AI across the clinical enterprise and AI-powered search on the institution's Find-A-Doc patient-facing site.
- Designed a multidimensional institutional faculty compensation plan that moves beyond wRVU alone, aligning compensation with each faculty member's primary mission, clarifying funds flow, and creating levers to adjust to institutional finances rather than national benchmarks alone.
- Contributed to the restructuring of the ambulatory care enterprise, introducing workflows that improved patient experience and clinic flow and raised room utilization, converting a persistent space shortage into surplus capacity.

Medical Director, Frankel Cardiovascular Center Clinics

University of Michigan · Ann Arbor, Michigan · 07/2020-03/2024

The largest multidisciplinary clinic in Michigan Medicine, spanning cardiology and all its subspecialties, vascular surgery, cardiothoracic surgery, neurology and diagnostic testing; approximately 90,000 patients annually, ranked first in Michigan and among the top 25 nationally for cardiology and heart surgery.

- Expanded cardio-oncology services, introducing systematic cardiovascular assessment of cancer patients undergoing cellular therapies and implementing automated referral workflows to identify them.
- Led the rapid deployment of telemedicine across the center during the COVID-19 pandemic, and established the protocols that accelerated the return to in-person services.
- Redesigned intake and rooming around a streamlined, patient-centered experience, cutting rooming time by 15 minutes and raising room utilization to 80 percent, which supported close to 300 patient visits per day despite constrained medical assistant staffing.
- Improved access to cardiovascular care by establishing an incentive plan for incremental cardiology clinics, reducing wait times from three months to under 15 days with new-patient appointments prioritized.

COMMITTEE AND GOVERNANCE SERVICE

University of Texas Medical Branch

- 2025-YTD Chair, Executive Leadership Council of the Department of Internal Medicine, convening the chiefs of all 11 divisions
- 2025-YTD Established the Department of Internal Medicine Faculty Advisory Council: 22 faculty across 9 divisions, all missions, tracks and ranks
- 2024-YTD Clinical Finance Committee, Member

- 2024 Chairman, Faculty Compensation and Incentive Plan Committee
- 2024 Chair, UTMB AI Steering Committee, established under the Chief Transformation Officer with the Chief AI Officer

University of Michigan

- 2022-2024 Central Biorepository Advisory Committee, Member
- 2022-2024 Cardiovascular Health Improvement Project (CHIP) Steering Committee, Member
- 2020-2024 Frankel Cardiovascular Center Interdisciplinary Clinical Care and Quality Council
- 2020-2023 Medical Group Data Advisory Committee
- 2019-2023 Basic Science Strategic Team

RESEARCH SUPPORT

NATIONAL INSTITUTES OF HEALTH

- 7/2023-7/2028 NIDDK U54-DK137314 \$3,000,000 – University of Michigan O'Brien Kidney Translational Resource Center (MKTC) – **Resource Development Core Director**
- 11/2021-11/2024 NIDDK R01-DK128012 \$1,200,000 – Extracorporeal SuPAR Extraction to Prevent COVID-19-associated Acute Kidney Injury – **Principal Investigator**
- 07/2020-06/2026 NHLBI R01-HL153384 \$2,500,000 – Role of suPAR in the Intersection between Cardiovascular and Kidney Disease – **Principal Investigator**
- 07/2020-06/2021 NIDDK U01-DK119083-03S1 \$390,000 – Incidence and Predictors of Acute and Chronic Complications in Patients with Diabetes and Severe COVID-19 – **Co-Principal Investigator**
- 04/2020-03/2022 NIDDK R01-DK109720-S1 \$78,000 – The KIDCOV Study: Assessment of Kidney Injury and Associated Risk Factors for SARS-CoV-2 – **Co-Investigator with effort**
- 05/2018-04/2024 NIH HHS UH3-AT009149 \$440,500 – Trial to Assess Chelation Therapy 2 – **Co-Investigator with effort**

INSTITUTIONAL

- 09/2026-08/2027 UTMB Claude D. Pepper Older Americans Independence Center Pilot Research Award \$50,000 – Testosterone, Exercise, and Protein for Cachexia Prevention in Older Cancer Survivors: A Feasibility Trial – **Multiple Principal Investigator**
- 07/2022-06/2023 Mi-Kickstart MTRAC for Life Sciences Innovation Hub \$42,262 – Designing anti-suPAR Therapeutics: A Novel Approach for Targeting Inflammation for the Prevention and Treatment of Cardiovascular Disease – **Principal Investigator**
- 04/2020-12/2022 FCVC COVID-19 Impact Research Ignitor \$99,175 – Effective Triaging of Patients with Suspected Covid-19 Using SuPAR – **Principal Investigator**
- 01/2022-01/2023 Aikens Aortic Discovery Research Program \$45,628 – Clinical and Genetic Insights into the Role of SuPAR in the Development and Progression of Aortic Aneurysms – **Principal Investigator**
- 11/2021-10/2022 Rogel Cancer Center Discovery Award \$75,000 – Cardiovascular Complications of Patients Undergoing Hematopoietic Stem Cell Transplantation (HSCT): Creating Evidence-based Strategies for the Pre-Transplant Cardiovascular Evaluation – **Principal Investigator**
- 08/2021-07/2023 Radiation Oncology Institute \$100,000 – Validation of progression and toxicity biomarkers in lung cancer – **Co-Investigator with effort**
- 07/2021-02/2022 Michigan Institute for Clinical and Health Research Catalyst Award \$50,000 – Use of Soluble Urokinase Plasminogen Activator Receptor to Define High-risk HFpEF and Guide Spironolactone therapy – **Principal Investigator**
- 08/2020-07/2021 Cedars Sinai \$202,125 – SuPAR, Interleukin-6 in PRE-DETERMINE – **Co-Investigator with effort**
- 01/2020-01/2021 FCVC Amplifier Mechanism \$10,000 – Experimental Models to Understand SuPAR's Role in Cardiovascular Disease – **Principal Investigator**

- 09/2019-09/2020 Mi-Kickstart MTRAC for Life Sciences Innovation Hub \$50,000 – Using a ‘suPAR’ Biomarker to Guide the Management of Multi-vessel Coronary Artery Disease – **Principal Investigator**
- 08/2019-07/2020 Michigan Institute for Clinical and Health Research \$50,000 – The Role of SuPAR in Atherosclerosis – **Principal Investigator**
- 07/2019-06/2020 Michigan Center for Contextual Factors in Alzheimer’s Disease \$30,000 – Using a “SuPAR” Biomarker to Evaluate the Burden of Inflammation and its Impact on the Ethnoracial Differences in Cognitive Decline – **Principal Investigator**
- 02/2019-02/2020 Frankel Cardiovascular Center McKay Research Grant \$40,000 – Genetic Determinants of SuPAR – **Principal Investigator**

INDUSTRY

- 04/2023-08/2023 Collection and Distribution of BKV Urine and Plasma (iProcess) \$72,800 – **Site Principal Investigator**
- 03/2023-02/2025 A Randomized, Double-Blind, Placebo-Controlled Phase 2/3 Study to Determine the Safety and Effectiveness of Azeliragon in the Treatment of Patients Hospitalized for COVID-19 (Cantex Pharmaceuticals) \$123,643 – **Principal Investigator**
- 02/2023-07/2023 Saliva SARS-CoV-2(2019-nCoV) Antigen Combined Test Kit: Clinical Evaluation Study \$68,391 – **Site Principal Investigator**
- 02/2023-07/2023 Saliva SARS-CoV-2(2019-nCoV) Antigen Combined Test Kit: Professional Usability Study \$21,993 – **Site Principal Investigator**
- 01/2023-01/2028 cvMOBIUS2: Cardiovascular Multicenter Observational Investigation of Lipid Care in the United States-2 \$46,550 – **Site Principal Investigator**
- 01/2023-12/2023 Comparison of Nasopharyngeal vs Anterior Nares Nasal Samples for the Influenza A/B Ag Rapid Test Cassette \$11,525 – **Site Principal Investigator**
- 01/2023-12/2023 Clinical Validation of the Influenza A/B Ag Rapid Test Cassette using Nasopharyngeal Samples for Point-of-Care Use \$133,400 – **Site Principal Investigator**
- 10/2022-08/2027 Abatacept in Immune Checkpoint Inhibitor Myocarditis – Bristol Myer Squibbs \$172,916 – **Site Principal Investigator**
- 10/2022-02/2024 Symphony IL-6 for COVID-19 Patients (BlueJay Diagnostics) \$100,250 – **Site Principal Investigator**
- 09/2022-07/2023 Shingles Biomarker Collection (iProcess) \$12,050 – **Site Principal Investigator**
- 10/2021-10/2022 Ortho-Clinical Diagnostics \$67,526 – Effective triage of patients presenting with Covid-19 – **Principal Investigator**
- 05/2021-04/2022 Miltenyi Biotec \$466,800 – Extracorporeal suPAR Extraction to Prevent COVID-19 Associated Acute Kidney Injury – **Principal Investigator**
- 10/2021-09/2022 Roche Diagnostics \$125,796 – Immune Checkpoint Inhibitors and Myocarditis – **Principal Investigator**
- 07/2020-06/2022 Gilead Sciences Research Scholar \$130,000 – Deciphering the “suPAR” Mechanism of Cardiovascular Disease: The Link Between the Heart, Kidneys, and Immune System – **Principal Investigator**

FOUNDATION

- 07/2014-07/2016 Katz Foundation Preventive Cardiology Grant \$140,000 – **Post-doctoral fellow**

PATENTS

- 9/2022 Methods to target the soluble urokinase plasminogen activator receptor pathway of disease for the prevention and treatment of atherosclerosis – U.S. Provisional Pat. App. No. 63/377,653, Intl. Pat. App. No. PCT/US2020/026396
- 11/2021 Use of soluble urokinase plasminogen activator receptor levels in the management of patients with atherosclerosis – U.S. Pat. App. No. 17/694,295, Eur. Pat. App. No. 20784156.0

RELATIONSHIPS WITH INDUSTRY

- **Current:** Boeringer Ingelheim – Eli Lilly – Novo Nordisk
- **Past:** Absolutys – Boeringer Ingelheim – Eli Lilly – Juisci – Lexicon Pharmaceuticals – Novartis – Novo Nordisk – Roche Diagnostics – Samsung – Walden Biosciences

HONORS AND AWARDS

- 2026 Elected to the American Society for Clinical Investigation
- 2024 Edward Randall and Edward Randall Jr. Distinguished Chair in Internal Medicine
- 2022 Jerome W. Conn Award for Excellence in Research given to a physician scientist who embodies the spirit of Dr. Conn by demonstrating curiosity and scholarship that significantly contributes to the advancement of knowledge
- 2022 Research Mentor of the Year Award by the University of Michigan Cardiovascular Fellowship Training Program
- 2021 Andersen Heart of a Champion Prize given to an awarded research proposal that received outstanding scores
- 2021 Juanita L. Merchant Junior Faculty Early Career Endowment Award which recognizes the contributions and achievements of junior faculty and provides additional discretionary funds
- 2021 American Heart Association Sarns Innovative Excellence Award presented to an individual with the courage to take on the unknown in search of new answers, better solutions and resources significantly impacting our ability to live longer, healthier lives
- 2019 American Heart Association Samuel A. Levine Early Career Clinical Investigator Award which recognizes and rewards innovative clinical research by early career investigators and trainees and promotes careers in clinical cardiovascular investigation
- 2018 Douglas P. Zipes Distinguished Young Scientist Award in recognition of the outstanding contributions to the field of cardiovascular disease and impressive body of scientific research
- 2016 Highlighted as Star Fellow-in-Training (FIT) – By the American College of Cardiology bit.ly/hayekacffit
- 2016 First Prize Award for Research Presentation – American College of Cardiology GA Chapter
- 2016 Sentinel of Science Award Recipient – Top 10% of researchers contributing to the peer review of the field of Medicine
- 2016 Finalist at the Northwestern Cardiovascular Young Investigator's Forum – Prestigious gathering of prominent faculty and young investigators where state of the art clinical and basic cardiovascular research is presented
- 2016 Distinction in Teaching Award – Awarded by Emory University to physicians who devote significant time and demonstrate excellence in teaching, mentoring, presentation skills, and dedication to the betterment of medical education
- 2015 Outstanding Postdoctoral Achievement Award – University-wide recognition by the Emory 1% Millipub of my “outstanding publication record for someone so early in their career”
- 2015 Top Clinical Research Poster Presentation – Emory Cardiology Research Symposium
- 2013 Distinction in Quality Improvement Award – Awarded by Emory University in recognition to physicians who have successfully designed and implemented measures that significantly improved the delivery and quality of patient care
- 2012 Outstanding Resident of the Year Award – Honors one outstanding physician who embodies a great spirit of altruism and whose combination of clinical promise, leadership, ability to think outside the box, and commitment to their patients and the profession
- 2012 First Prize Award for Oral Presentation of Research Abstract – Awarded by a jury of nationally recognized leaders in their field to three out of two hundred poster presentations at the American College of Physicians meeting
- 2011 Second Prize Award for Poster Presentation of Clinical Abstract – Awarded by a jury of nationally recognized leaders in their field to three out of two hundred poster presentations at the American College of Physicians meeting
- 2008 Penrose Award nomination – Award granted by the American University of Beirut based on the best combination of scholarship, character, leadership and contribution to the University as a whole
- 2008 Honors in Medicine – Awarded by the American University of Beirut to medical students who rank in the top 10% of their class
- 2008 Honors in Biology – Awarded by the American University of Beirut to medical students who rank in the top 10% of their class

EDITORIAL POSITIONS, BOARDS AND PEER-REVIEW

- 2022-YTD Editorial Consultant – JACC: CardioOncology
- 2018-YTD ACC.org Associate Editor
- 2018-YTD Kidney International Reports Associate Editor
- 2017-YTD Abstract reviewer for the American College Cardiology Scientific Sessions
- 2026 External reviewer for faculty promotion, Icahn School of Medicine at Mount Sinai Appointments, Promotions and Tenure Committee
- 2025 Department of Defense PRMRP Reviewer
- 2025 NIH Environmental Determinants of Disease (EDD) Study Section Reviewer
- 2023 Barts Charity Foundation (United Kingdom) – Grant Reviewer
- 2021 Invited evaluator of PhD thesis and defense for Juliette Tavenier, University of Copenhagen, Denmark
- 2020 Guest Editor for the Journal of Thrombosis and Thrombolysis
- 2020 American University of Beirut Research Committee – Grant Reviewer
- 2019 Canada Glycomics Network – Grant Reviewer
- 2019 Heart Foundation of New Zealand – Grant Reviewer
- 2017 Invited evaluator of PhD thesis and defense for Thomas Haupt, Hvidovre University Hospital, Denmark
- Peer reviewer for over 80 national and international journals including: NEJM, BMJ, Journal of the American College of Cardiology, Journal of the American Heart Association, Circulation, Annals of Internal Medicine, European Journal of Heart Failure and many others (<http://bit.ly/hayekpub>).

SOCIETIES

- 2025-YTD Program Planning Committee, Association of Professors of Medicine (AAIM)
- 2020-YTD American Heart Association COVID-19 Research and Proposal Committee
- 2019-YTD American Heart Association Cardio-Oncology Committee member
- 2026 Selection Committee, NAAMA Houston Ben Qurrah Awards
- 2023-2025 Chair of the American Heart Association Cardio-Oncology Committee
- 2023-2025 Vice-Chair of the American Heart Association Cardio-Oncology Committee
- 2018-2020 Southwest Oncology Group (SWOG) Cardiotoxicity Advisory Panel
- 2018-2020 American College of Cardiology Innovation section leadership council member
- 2017-2019 American College of Cardiology Cardio-Oncology section leadership council member
- 2016-2019 American College of Cardiology Innovation Advisory Group member

INVITED TALKS AND LECTURES

EXTRAMURAL

- 2025, San Antonio TX, “From Biomarker to BioMaker – The Story of SuPAR in Cardiovascular Disease”, UT Health San Antonio Medicine Grand Rounds
- 2024, Columbus OH, “Role of Biomarkers in Managing Immune Checkpoint Inhibitor Myocarditis”, Ohio State Cardio-Oncology Seminar
- 2023, Chicago IL, “Cardio-Oncology 101 – High-Yield Case Series Volume 1”, University of Chicago Cardiology Grand Rounds
- 2023, Chicago IL, “Cardio-Oncology 101 – High-Yield Case Series Volume 1”, Northwestern University Cardiology Grand Rounds
- 2023, Nashville TN, “From Biomarker to BioMaker – The Story of SuPAR in Kidney and Cardiovascular Disease”, Vanderbilt University Cardiology Grand Rounds

- 2023, Paris, France, “From Biomarker to BioMaker: The Story of SuPAR in Kidney and Cardiovascular Diseases”, Clinical Pharmacology Seminar, Sorbonne University Pitié Salpêtrière Hospital
- 2023, Bangkok, Thailand, “Mechanisms of Cardio-Renal Axis”, World Congress of Nephrology 2023
- 2022, Mackinac Island, MI, “The Role of Biomarkers in the Care of Cardio-Oncology Patients”, 34th Annual Cardiology Update course
- 2022, Mackinac Island, MI, “Cardio-Oncology 101: High-Yield Case Series Vol. 1”, 34th Annual Cardiology Update course
- 2022, Mackinac Island, MI, “Long-Covid: Expectations and Management”, 34th Annual Cardiology Update course
- 2022, Virtual, “Evidence-based Cardio-Oncology: Update from the 2022 AHA/ACC/HFSA Heart Failure Guidelines”, July ACTION Learning Session, ACTION Learning Network
- 2022, Virtual, “The Omics Revolution”, The Evolving Practice of Cardiovascular Precision Medicine course, American College of Cardiology
- 2022, Ann Arbor, MI, “SuPAR, The Inflammatory Mediator of Diabetes Complications”, Frontiers in Diabetes Complications, Caswell Diabetes Institute
- 2022, Atlanta, GA, “From Biomarker to BioMaker: The Story of SuPAR in Kidney Disease”, Special Research Seminar, Emory University
- 2022, Houston, TX, “From Biomarker to BioMaker: The Story of SuPAR in Kidney Disease”, Cardiovascular Grand Rounds, MD Anderson Cancer Center
- 2022, Doha, Qatar, “From Biomarker to BioMaker: The Story of SuPAR in Kidney Disease”, College of Health & Life Sciences, Hamad Bin Khalifa University
- 2021, Ann Arbor, MI, “The Role of Biomarkers in the Care of Cardio-Oncology Patients”, Michigan State Medical Society Annual Scientific Meeting
- 2021, Chicago, IL, “Biomarkers for the Monitoring and Prevention of Heart Disease in Patients with Cancer: Traditional and Innovative Perspectives”, Rush University Cardio-Oncology Symposium
- 2021, Copenhagen, Denmark, “SuPAR in acute and chronic kidney disease, indications for use?”, Danish Diabetes Academy Symposium on diabetes, obesity and end organ damage assessment
- 2021, Chicago, IL, “Biomarkers for Monitoring and Prevention in Cancer/Heart disease: Traditional and Innovative Perspectives”, Rush University Medical Center
- 2020, Virtual, “SuPAR as a Risk Factor for Acute Kidney Injury: Novel Therapeutic Target?”, Invited speaker for the George O’Brien Kidney Center Retreat
- 2020, Virtual, “Quantifying the Cytokine Surge: Inflammatory Markers and Outcomes in COVID-19”, Invited speaker at the Kahn Research and Education Symposium
- 2020, Houston, TX, “Pre-BMT Cardiovascular Evaluation: Why, When and How?”, Invited speaker at the Division of Cardiology Grand Rounds, MD Anderson Cancer Center
- 2020, Ventura, CA, “Defining High-risk Heart Failure with Preserved Ejection Fraction using SuPAR”, Invited speaker at the Gordon Research Conference for Plasminogen Activation and Extracellular Proteolysis
- 2019, Chicago, IL, “Cardiovascular and Kidney Disease: Through the suPAR Looking Glass”, Invited speaker at the Department of Medicine Grand Rounds, Rush University
- 2019, Mannheim, Germany, “SuPAR as a Biomarker of the Cardio-Renal Axis: Lessons from the Emory Cardiovascular Biobank”, Invited speaker at the Cardio-Renal Axis Symposium 2019
- 2018, Alberta, ON, “Soluble Urokinase and the Link Between CKD and CVD, Stumbling Upon New Pathways”, Invited speaker at the University of Alberta Cardiovascular Grand Rounds
- 2018, Amelia Island, FL, “Advancing the Cardiovascular Care of Patients with Cancer: The Argument for Cardio-Oncology”, Invited speaker at the Emory Symposium on Coronary Atherosclerosis Prevention and Education (ESCAPE)
- 2018, Amelia Island USA, “Roadmap for Innovation: Cardiovascular Care Transformation”, Invited speaker at the Emory Symposium on Coronary Atherosclerosis Prevention and Education (ESCAPE)
- 2018, Seattle WA, “Kidney Disease and the Heart: Finding the Missing Link”, Invited speaker at the University of Washington Division of Cardiology Grand Rounds

- 2016, Beirut LB, “Soluble Urokinase Plasminogen Activator Receptor in Kidney Disease: Deciphering the Risk Factor/Biomarker Conundrum”, Invited speaker at the American University of Beirut for Renal Grand Rounds and the Department of Biochemistry Special Seminar
- 2016, Chicago USA, “Soluble Urokinase Plasminogen Activator Receptor: Deciphering the Risk Factor/Biomarker Conundrum”, Invited speaker at the SuPAR Symposium at Rush University
- 2016, Chicago USA, “Soluble Urokinase Plasminogen Activator Receptor and Cardiovascular Outcomes in Patients with heart failure”, Northwestern Cardiovascular Young Investigator Forum

INTRAMURAL

- 2025, Galveston TX, “From Biomarker to BioMaker: The Story of Soluble Urokinase Receptor (SuPAR) in Cardiovascular Disease”, UTMB Research Day
- 2023, Ann Arbor MI, “From Biomarker to BioMaker: The Story of Soluble Urokinase Plasminogen Activator Receptor (SuPAR) in Kidney and Cardiovascular Disease”, Invited speaker at the University of Michigan Frontiers in Cardiovascular Science Seminar
- 2023, Ann Arbor MI, “From Biomarker to BioMaker: The Story of Soluble Urokinase Plasminogen Activator Receptor (SuPAR) in Kidney and Cardiovascular Disease”, Invited speaker at the Michigan Biology of Cardiovascular Aging Seminar
- 2021, Ann Arbor MI, “Cardio-Oncology 101: High Yield Case Series Vol. 1”, UM Cardiology Conference
- 2021, Ann Arbor MI, “From Biomarker to BioMaker: The Story of Soluble Urokinase Receptor in Kidney Disease”, UM Department of Internal Medicine Grand Rounds
- 2020, Ann Arbor MI, “COVID-19 and the Heart”, Invited speaker for the UM NeuroNetwork for Emerging Therapies Mini Symposium on Complications of COVID-19
- 2020, Ann Arbor MI, “Quantifying the Cytokine Surge: Inflammatory Markers and Outcomes in COVID-19”, Invited speaker at the UM Biosciences Initiative Symposium
- 2019, Ann Arbor MI, “Soluble Urokinase Plasminogen Activator Receptor in Kidney and Cardiovascular Disease, From Biomarker to Biomaker”, Invited speaker at the University of Michigan Frontiers in Cardiovascular Science Seminar
- 2019, Ann Arbor, MI, “SuPAR and Kidney Disease: What Controversy?”, Invited Speaker at UM Nephrology Basic Science Seminar
- 2019, Ann Arbor MI, “Challenges in the Diagnosis of Cardiotoxicity”, Invited Speaker at the UM Breast Cancer Educational Forum.
- 2018, Ann Arbor MI, “Soluble Urokinase and the Link Between CKD and CVD, Stumbling Upon New Pathways”, Invited speaker at the University of Michigan Cardiovascular Grand Rounds

SCIENTIFIC SESSIONS

- 2025, Houston TX, “From Biomarker to BioMaker: The Story of Soluble Urokinase Receptor (SuPAR) in Cardiovascular Disease”, American Society of Nephrology Kidney Week 2025
- 2023, New Orleans LA, “Cardiovascular Events and Risk Factors Related to Bone Marrow Transplantation”, American College of Cardiology Scientific Sessions 2023
- 2022, Chicago IL, “How to Diagnose Immune-Checkpoint Inhibitor Related Myocarditis – A Clinical Primer”, American Heart Associations
- 2022, Washington DC, “Vascular Medicine Consult: An Expert’s Approach”, Panelist, American College of Cardiology Scientific Sessions 2022
- 2021, Virtual, “Cardiovascular Toxicity Monitoring Strategies in Oncological Patients”, Moderator, American Heart Association Scientific Sessions 2021
- 2020, Virtual, “Epidemiology of SuPAR as a Circulating Risk Factor for Kidney Disease”, Invited speaker for the American Society of Nephrology Kidney Week 2020
- 2020, Virtual, “SuPAR Compared to hs-TnI, hs-CRP and BNP in Predicting Outcomes”, Invited speaker for the American College of Cardiology Young Investigator Award 2020
- 2019, San Francisco CA, “Challenges in the Diagnosis of Cardiotoxicity: Role of Biomarkers”, Invited speaker for the SWOG Cancer Network

- 2019, Philadelphia, PA, “Myocarditis due to Immune Checkpoint Inhibitors: Cardiac Biomarkers are Necessary in All Patients”, Invited speaker for the American Heart Association Meeting 2019
- 2019, Philadelphia, PA, “Soluble Urokinase Receptor and Acute Kidney Injury”, Invited speaker for the American Heart Association Samuel A. Levine Early Career Clinical Investigator Award
- 2018, Orlando, FL, “Kidney Disease and The Heart: Is suPAR the Missing Link?”, Douglas P. Zipes Distinguished Young Scientist Presentation, American College of Cardiology
- 2018, Orlando, FL, “Innovate or Perish: Emerging Technologies and the Future of Cardiovascular Practice”, Moderator, American College of Cardiology
- 2018, Orlando, FL, “Skills for Today and Tomorrow’s Cardiology Educators and Innovators”, Moderator, American College of Cardiology
- 2018, Orlando, FL, “Early Career Highlights - Innovation Section and Future Hub”, Invited speaker, American College of Cardiology
- 2016, Washington, DC, “Soluble Urokinase Plasminogen Activator Receptor in Cardiac and Renal Disease”, Invited speaker, American College of Cardiology
- 2015, London UK, “Depression is the Strongest Predictor of Angina and is Independent of Underlying Coronary Artery Disease Severity in Patients with Cardiovascular Disease”, Invited speaker, European Society of Cardiology
- 2015, San Diego, CA, “The incidence of paravalvular regurgitation in transthoracic echocardiography-guided deployment of transcatheter aortic valve is comparable to that of transesophageal echocardiography-guided deployment”, American College of Cardiology
- 2013, San Francisco, CA, “Prevalence and Characteristics of Patients Eligible for Catheter-Based Renal Arterial Denervation in an Academic Cardiology Clinic”, American College of Cardiology
- 2012, Atlanta, GA, “End-of-Life Care Planning: Improving Documentation of Advanced Directives in the Outpatient Clinic using Electronic Medical Records”, 6th Annual Performance Improvement Project Conference and at the 3rd Annual Science of GME day
- 2012, Atlanta, GA, “Challenges in Defining Resistant Hypertension: Prevalence among Hypertensive Outpatients Varies With Inclusion of Diuretic Use and Medication Dosing”, Invited speaker, American College of Physicians
- 2012, San Diego, CA, “Low Dose Dobutamine Stress Echocardiography and outcomes in patients undergoing Transcatheter Aortic Valve Replacement”, Invited speaker, American Heart Association

225 peer-reviewed publications. Citation metrics as of 8/2026: 28,222 citations, h-index 63, i10-index 166

ORIGINAL MANUSCRIPTS

- Yeo YH, Wong HKK, Tan JY, Ong TE, Vignarajah A, Koo TH, Vigneswaramoorthy N, Donisan T, Ayoub C, Okwuosa TM, **Hayek SS**. SGLT2 inhibitors and cardiovascular outcomes in patients with diabetes following hematopoietic stem cell transplantation: A propensity-matched cohort study. *Int J Cardiol*. 2026;461:134668.
- El Zarif T, Abou Alaiwi S, Nassar AH, Gariazzo E, Santo V, Garbo E, Aldea M, Paoloni F, Pannu S, Semaan K, Chehab O, Hoballah M, Navani V, Gao Y, Meyers D, Stukalin I, Mittra A, Li M, Jones N, Grynberg S, Shapira R, Vasbinder A, **Hayek SS**, Bou Farhat E, Eid M, Saad E, Freeman D, Parikh K, Desai A, Smith C, El-Am E, Nana FA, Foderaro S, Baena J, Herrera M, Cortellini A, Pinato DJ, Korolewicz J, Kim C, Sackstein P, Denu RA, Macaron W, Abdel-Wahab N, Neilan TG, Lima JAC, Florez N, Janne P, Ricciuti B, Pecci F, Choueiri TK, Kwan JM, Naqash AR. Effectiveness and safety of immunotherapy in advanced NSCLC with pericardial effusions: a global retrospective multicenter study. *Oncologist*. 2026;31(9).
- Ismail A, Erne G, Vasbinder A, Hutten CG, Ghazzal BZ, Pizzo I, Diaz KM, Catalan TC, Farhat T, Knott B, Kunkle P, Szarek M, Davies MJ, Steg PG, Pitt B, Bhatt DL, **Hayek SS**. Sotagliflozin, suPAR, and Cardiovascular Outcomes in Patients With Diabetes and Heart Failure: A SOLOIST-WHF Ancillary Study. *J Card Fail*. 2026;32(8):1362-1372.
- Ismail A, Huang Y, Ghazzal B, Hutten C, Farhat T, Elangovan R, Bobby B, Kunkle P, Vasbinder A, Banerjee M, Quyyumi A, Pratley RE, Brooks MM, Pop-Busui R, **Hayek SS**. suPAR Identifies Treatment-Resistant Inflammatory Risk Beyond hs-CRP in Type 2 Diabetes With Coronary Artery Disease: An Ancillary Analysis of BARI 2D. *Diabetes Care*. 2026.
- Vosooghi A, Mahadevan A, Arora J, Farhat T, Vasbinder A, **Hayek SS**. Comparative Risk of Cardiovascular Hospitalization With Immune Checkpoint Inhibitors Versus Chemotherapy. *JCO Oncol Pract*. 2026:OP2600129.
- Power JR, Dolladille C, Ozbay B, Procureur A, Ederhy S, Palaskas NL, Lehmann LH, Cautela J, Courand PY, **Hayek SS**, Zhu H, Zaha VG, Cheng RK, Alexandre J, Roubille F, Baldassarre LA, Chen YC, Baik AH, Laufer-Perl M, Tamura Y, Asnani A, Francis S, Gaughan EM, Rainer PP, Bailly G, Flint D, Arangalage D, Cariou E, Florido R, Narezkina A, Liu Y, Sandhu S, Leong D, Issa N, Piriou N, Heinzerling L, Peretto G, Crusz SM, Akhter N, Levenson JE, Turker I, Eslami A, Fenieux C, Moliner P, Obeid M, Chan WT, Ewer SM, Kassaian SE, Johnson DB, Nohria A, Ben Zadok OI, Moslehi JJ, Salem JE, International ICI-Myocarditis Registry. Immune checkpoint inhibitor-associated myocarditis: a novel risk score. *Eur Heart J*. 2026;47(9):1050-1062.
- Sharma SB, Kumar K, Parchment N, Eggleston T, De Melo Jorge DM, Bamezai S, Wu W, Moore BB, **Hayek SS**, Hogan SP, Henke PK, Gallagher KA, Obi AT. Viral-specific induction of cellular and soluble urokinase plasminogen activator receptor (suPAR) expression. *J Immunol*. 2026;215(2).
- Hutten CG, Tekumulla A, Ismail A, Vasbinder A, Farhat T, Kunkle P, Goonewardena SN, Abdel-Latif A, Pitt B, **Hayek SS**. Soluble urokinase plasminogen activator receptor and outcomes in HFpEF: A TOPCAT ancillary study. *ESC Heart Fail*. 2025;12(6):4208-4218.
- Bardwell AR, Hutten CG, Vasbinder A, Presswalla F, Ismail A, Huang Y, Catalan T, Diaz KM, Pizzo I, Anderson E, Banerjee M, Pop-Busui R, **Hayek SS**. Pregnant hospitalized COVID-19 patients: disease, delivery, maternal and fetal outcomes. *BMC Pregnancy Childbirth*. 2025;25(1):1089.
- Keys T, Greer C, Adamson PD, Pickering JW, Pilbrow AP, Frampton C, **Hayek S**, Troughton RW, Doughty RN, Richards AM, Pemberton CJ, Chew-Harris J. Soluble urokinase plasminogen activator receptor for risk stratification from undifferentiated acute chest pain through to convalescence after acute coronary syndromes. *Eur Heart J Open*. 2025;5(5):oeaf097.
- Siontis BL, Rice JD, Schuetze SM, Rottmann D, Angeles CV, Fox AK, Zyczynski LE, **Hayek S**, Robinson SI, Okuno SH, Ho TP, Chugh R. A Phase II Multicenter Trial of Trabectedin in Combination with Olaparib in Patients with Advanced Unresectable or Metastatic Sarcoma. *Clin Cancer Res*. 2025;31(14):2919-2925.
- Harmouch W, Thakker R, Dang A, Etewa AM, Suthar K, **Hayek S**, Khalife W, Elbadawi A. ACEi and ARBs as Primary Prevention of Cancer Therapy-Related Cardiomyopathy in Patients Undergoing Chemotherapy with Anthracyclines: A Systematic Review and Meta-Analysis. *Cardiol Ther*. 2025;14(2):141-159.

- Wadhvani S, Mansfield SA, Smith AR, Robinson BM, Abdelghani E, Al-Uzri A, Ashoor IF, Bartosh SM, Chishti AS, **Hayek SS**, Hladunewich MA, Kerlin BA, Madapoosi SS, Mariani LH, Mottl AK, Rheault MN, O'Shaughnessy MM, Sperati CJ, Srivastava T, Selewski DT, Wang CS, Wong CS, Weaver DJ, Khalid M, GlomeruloNephropathy (CureGN) Study Consortium. Cardiovascular and Thromboembolic Events in Children and Adults With Glomerular Disease: Findings From the Cure GlomeruloNephropathy (CureGN) Network. *Kidney Med.* 2025;7(6):100877.
- Yadalam AK, Liu C, Sun YV, Mandawat A, Quyyumi AA, **Hayek SS**. Proteomics-Based Soluble Urokinase Plasminogen Activator Receptor Levels and Long-Term Cardiovascular Outcomes in Survivors of Breast Cancer: A UK Biobank Study. *J Am Heart Assoc.* 2025;14(9):e039728.
- Chen YC, Dolladille C, Rao A, Palaskas NL, Deswal A, Lehmann L, Cautela J, Courand PY, **Hayek S**, Zhu H, Cheng RK, Alexandre J, Baldassarre LA, Roubille F, Laufer-Perl M, Asnani A, Ederhy S, Tamura Y, Francis S, Gaughan EM, Johnson DB, Flint DL, Rainer PP, Bailly G, Ewer SM, Aras MA, Arangalage D, Cariou E, Florido R, Peretto G, Itzhaki Ben Zadok O, Akhter N, Narezkina A, Levenson JE, Liu Y, Crusz SM, Issa N, Priou N, Leong D, Sandhu S, Turker I, Moliner P, Obeid M, Heinzerling L, Chang WT, Stewart A, Venkatesh V, Du Z, Yadavalli A, Kim D, Chandra A, Zhang KW, Power JR, Moslehi J, Salem JE, Zaha VG, International ICI Myocarditis Registry. Immune Checkpoint Inhibitor Myocarditis and Left Ventricular Systolic Dysfunction. *JACC CardioOncol.* 2025;7(3):234-248.
- Jehle DVK, Sunesra R, Uddin H, Paul KK, Joglar AA, Michler OD, Blackwell TA, Gaalema D, **Hayek S**, Jneid H. Benefits of Tadalafil and Sildenafil on Mortality, Cardiovascular Disease, and Dementia. *Am J Med.* 2025;138(3):441-448.e3.
- Ang L, Gunaratnam S, Huang Y, Dillon BR, Martin CL, Burant A, Reiss J, Blakely P, Vasbinder A, Zhao L, Mizokami-Stout K, Tang Y, Feldman EL, Doria A, Spino C, Banerjee M, **Hayek SS**, Pop-Busui R. Inflammatory Markers and Measures of Cardiovascular Autonomic Neuropathy in Type 1 Diabetes. *J Am Heart Assoc.* 2025;14(1):e036787.
- Navar AM, Shah NP, Shrader P, Thomas LE, Ahmad Z, Allred C, Chamberlain AM, Chrischilles EA, Dhalwani N, Effron MB, **Hayek S**, Jones LK, Kalich B, Shapiro MD, Wójcik C, Peterson ED. Achievement of LDL-C <55 mg/dL among US adults: Findings from the cvMOBIUS2 registry. *Am Heart J.* 2025;279:107-117.
- Shugg T, Nguyen T, Hua X, Richards B, Rae J, Dess R, Perry D, Kay B, **Hayek SS**, Leja M, Luzum JA. Factors Associated With the Recovery of Left Ventricular Ejection Fraction in Patients With Anthracycline-Induced Left Ventricular Dysfunction. *J Cardiovasc Pharmacol Ther.* 2025;30:10742484241304304.
- Bhatti AW, Patel R, Dani SS, Khadke S, Makwana B, Lessey C, Shah J, Al-Husami Z, Yang EH, Thavendiranathan P, Neilan TG, Sadler D, Cheng RK, Dent SF, Liu J, Lopez-Fernandez T, Herrmann J, Scherrer-Crosbie M, Lenihan DJ, **Hayek SS**, Ky B, Deswal A, Barac A, Nohria A, Ganatra S. SGLT2i and Primary Prevention of Cancer Therapy-Related Cardiac Dysfunction in Patients With Diabetes. *JACC CardioOncol.* 2024;6(6):863-875.
- Ismail A, Shadid HR, Huang Y, Hutten CG, Vasbinder A, Pizzo I, Catalan TC, Diaz KM, Kunkle P, Banerjee M, Rubenfire M, Brandt EJ, Williams G, Pop-Busui R, **Hayek SS**. Statin Therapy, Inflammation, and Outcomes in Patients Hospitalized for COVID-19: A Prospective Multicenter Cohort Study. *Am J Med.* 2024;137(12):1264-1271.e1.
- Yeo YH, San BJ, Tan JY, Tan MC, Donisan T, Lee JZ, Franey LM, **Hayek SS**. Cardiovascular mortality trends and disparities in U.S. breast cancer patients, 1999-2020: a population-based retrospective study. *Cardiooncology.* 2024;10(1):89.
- Gradone AL, Ma VT, Vasbinder A, Fecher LA, Yentz S, **Hayek SS**, Lao CD. Increased myositis and possible myocarditis in melanoma patients treated with immune checkpoint inhibitors in the COVID-19 era. *Cancer Immunol Immunother.* 2024;73(12):259.
- Hutten CG, Padalia K, Vasbinder A, Huang Y, Ismail A, Pizzo I, Machado Diaz K, Catalan T, Presswalla F, Anderson E, Erne G, Bitterman B, Blakely P, Giamarellos-Bourboulis EJ, Loosen SH, Tacke F, Chalkias A, Reiser J, Eugen-Olsen J, Banerjee M, Pop-Busui R, **Hayek SS**. Obesity, Inflammation, and Clinical Outcomes in COVID-19: A Multicenter Prospective Cohort Study. *J Clin Endocrinol Metab.* 2024;109(11):2745-2753.
- Kumar A, Khadke S, AlKindi S, Rajagopalan S, Nasir K, Kazi D, Ahmad J, Khan S, Asnani A, Addison D, Sadler D, Deswal A, Barac A, Guha A, Liu J, Lenihan D, Neilan TG, **Hayek S**, Hermann J, Nohria A, Dani SS, Ganatra S. Particulate Matter 2.5 Pollution Impact on Comorbid Cancer and Cardiovascular Disease Mortality in the U.S. *JACC Adv.* 2024;3(8):101106.
- Chalkias A, Huang Y, Ismail A, Pantazopoulos I, Papagiannakis N, Bitterman B, Anderson E, Catalan T, Erne GK, Tilley CR, Alaka A, Amadi KM, Presswalla F, Blakely P, Bernal-Morell E, Cebreiros López I, Eugen-Olsen J, García de Guadiana Romualdo L, Giamarellos-Bourboulis EJ, Loosen SH, Reiser J, Tacke F, Skoulakis A, Laou E, Banerjee M, Pop-Busui R, **Hayek**

SS, International Study of Inflammation in COVID-19 (ISIC) Investigator Group. Intubation Decision Based on Illness Severity and Mortality in COVID-19: An International Study. *Crit Care Med*. 2024;52(6):930-941.

- Power JR, Dolladille C, Ozbay B, Procureur AM, Ederhy S, Palaskas NL, Lehmann LH, Cautela J, Courand PY, **Hayek SS**, Zhu H, Zaha VG, Cheng RK, Alexandre J, Roubille F, Baldassarre LA, Chen YC, Baik AH, Laufer-Perl M, Tamura Y, Asnani A, Francis S, Gaughan EM, Rainer PP, Bailly G, Flint D, Arangalage D, Cariou E, Florido R, Narezkina A, Liu Y, Sandhu S, Leong D, Issa N, Piriou N, Heinzerling L, Peretto G, Crusz SM, Akhter N, Levenson JE, Turker I, Eslami A, Fenioux C, Moliner P, Obeid M, Chan WT, Ewer SM, Kassaian SE, International ICI-Myocarditis Registry, Johnson DB, Nohria A, Zadok OIB, Moslehi JJ, Salem JE. Predictors and Risk Score for Immune Checkpoint-Inhibitor-Associated Myocarditis Severity. *medRxiv*. 2024.
- Goonewardena SN, Chen Q, Tate AM, Grushko OG, Damodaran D, Blakely PK, **Hayek SS**, Pinsky DJ, Rosenson RS. Monocyte-Mediated Thrombosis Linked to Circulating Tissue Factor and Immune Paralysis in COVID-19. *Arterioscler Thromb Vasc Biol*. 2024;44(5):1124-1134.
- Guduguntla BA, Vasbinder A, Anderson E, Azam TU, Blakely P, Webster NJ, Gonzalez R, Atonucci T, Heidebrink JL, Giordani B, Zahodne L, Hampstead BM, Ajrouch KJ, **Hayek SS**. Biomarkers of chronic inflammation and cognitive decline: A prospective observational study. *Alzheimers Dement (Amst)*. 2024;16(1):e12568.
- Schmidt BM, Huang Y, Banerjee M, **Hayek SS**, Pop-Busui R. Residential Address Amplifies Health Disparities and Risk of Infection in Individuals With Diabetic Foot Ulcers. *Diabetes Care*. 2024;47(3):508-515.
- Vasbinder A, Anderson E, Catalan T, Ismail A, Banerjee M, Pizzo I, Machado K, Blakely P, Salem JE, **Hayek SS**. Incidence of Immune Checkpoint Inhibitor-Induced Myocarditis During the COVID-19 Pandemic. *J Am Heart Assoc*. 2024;13(6):e032667.
- Vasbinder A, Catalan T, Anderson E, Chu C, Kotzin M, Murphy D, Cheplowitz H, Diaz KM, Bitterman B, Pizzo I, Huang Y, Xie J, Hoeger CW, Kaakati R, Berlin HP, Shadid H, Perry D, Pan M, Takiar R, Padalia K, Mills J, Meloche C, Bardwell A, Rochlen M, Blakely P, Leja M, Banerjee M, Riwes M, Magenau J, Anand S, Ghosh M, Pawarode A, Yanik G, Nathan S, Maciejewski J, Okwuosa T, **Hayek SS**. Cardiovascular Risk Stratification of Patients Undergoing Hematopoietic Stem Cell Transplantation: The CARE-BMT Risk Score. *J Am Heart Assoc*. 2024;13(1):e033599.
- Vasbinder A, Padalia K, Pizzo I, Machado K, Catalan T, Presswalla F, Anderson E, Ismail A, Hutten C, Huang Y, Blakely P, Azam TU, Berlin H, Feroze R, Launius C, Meloche C, Michaud E, O'Hayer P, Pan M, Shadid HR, Rasmussen LJH, Roberts DA, Zhao L, Banerjee M, Murthy V, Loosen SH, Chalkias A, Tacke F, Reiser J, Giamarellos-Bourboulis EJ, Eugen-Olsen J, Pop-Busui R, **Hayek SS**, ISIC investigators. SuPAR, biomarkers of inflammation, and severe outcomes in patients hospitalized for COVID-19: The International Study of Inflammation in COVID-19. *J Med Virol*. 2024;96(1):e29389.
- Fenioux C, Abbar B, Boussouar S, Bretagne M, Power JR, Moslehi JJ, Gougis P, Amelin D, Dechartres A, Lehmann LH, Courand PY, Cautela J, Alexandre J, Procureur A, Rozes A, Leonard-Louis S, Qin J, International ICI-Myocarditis Registry, Cheynier R, Charmeteau-De Muylder B, Redheuil A, Tubach F, Cadranel J, Milon A, Ederhy S, Similowski T, Johnson DB, Pizzo I, Catalan T, Benveniste O, **Hayek SS**, Allenbach Y, Rosenzweig M, Dolladille C, Salem JE. Thymus alterations and susceptibility to immune checkpoint inhibitor myocarditis. *Nat Med*. 2023;29(12):3100-3110.
- Jain V, Mehta A, Lee TB, Liu C, Chew NWS, Ko YA, Gold ME, Gold DA, Vatsa N, Desai SR, Kim JH, Rahbar A, Haroun Y, Ejaz K, **Hayek SS**, Siddiqui MS, Salloum FN, Sperling LS, Sanyal AJ, Quyyumi AA. Immune Activation Mediates the Association of Advanced Hepatic Fibrosis With Adverse Outcomes in Patients With Coronary Artery Disease. *J Am Heart Assoc*. 2023;12(24):e031230.
- Vasbinder A, Hoeger CW, Catalan T, Anderson E, Chu C, Kotzin M, Xie J, Kaakati R, Berlin HP, Shadid H, Perry D, Pan M, Takiar R, Padalia K, Mills J, Meloche C, Bardwell A, Rochlen M, Blakely P, Leja M, Banerjee M, Riwes M, Magenau J, Anand S, Ghosh M, Pawarode A, Yanik G, Nathan S, Maciejewski J, Okwuosa T, **Hayek SS**. Cardiovascular Events After Hematopoietic Stem Cell Transplant: Incidence and Risk Factors. *JACC CardioOncol*. 2023;5(6):821-832.
- Sommerer C, Müller-Krebs S, Nadal J, Schultheiss UT, Friedrich N, Nauck M, Schmid M, Nußhag C, Reiser J, Eckardt KU, Zeier M, **Hayek SS**, German Chronic Kidney Disease Investigators. Prospective Cohort Study of Soluble Urokinase Plasminogen Activation Receptor and Cardiovascular Events in Patients With CKD. *Kidney Int Rep*. 2023;8(11):2265-2275.
- Desai SR, Dhindsa DS, Ko YA, Sandesara PB, Mehta A, Liu C, Tahhan AS, **Hayek SS**, Ejaz K, Hooda A, Alkhoder A, Islam SJ, Rogers SC, Beshiri A, Murtagh G, Kim JH, Wilson P, Almuwaqqat Z, Sperling LS, Quyyumi AA. Aggregate Clinical and Biomarker-Based Model Predicts Adverse Outcomes in Patients With Coronary Artery Disease. *Am J Cardiol*. 2023;203:315-324.

- Zhu K, Mukherjee K, Wei C, **Hayek SS**, Collins A, Gu C, Corapi K, Altintas MM, Wang Y, Waikar SS, Bianco AC, Koch A, Tacke F, Reiser J, Sever S. The D2D3 form of uPAR acts as an immunotoxin and may cause diabetes and kidney disease. *Sci Transl Med.* 2023;15(714):eabq6492.
- Lehmann LH, Heckmann MB, Bailly G, Finke D, Procureur A, Power JR, Stein F, Bretagne M, Ederhy S, Fenioux C, Hamwy O, Funck-Brentano E, Romano E, Pieroni L, Münster JP, Allenbach Y, Anquetil C, Leonard-Louis S, Palaskas NL, **Hayek SS**, Katus HA, Giannitsis E, Frey N, Kaya Z, Moslehi J, Prifti E, Salem JE. Cardiomyocardial Biomarkers in the Diagnosis and Prognostication of Immune Checkpoint Inhibitor Myocarditis. *Circulation.* 2023;148(6):473-486.
- Moey MYY, Hennessy C, French B, Warner JL, Tucker MD, Hausrath DJ, Shah DP, DeCara JM, Bakouny Z, Labaki C, Choueiri TK, Dent S, Akhter N, Ismail-Khan R, Tachiki L, Slosky D, Polonsky TS, Awosika JA, Crago A, Wise-Draper T, Balanchivadze N, Hwang C, Fecher LA, Gomez CG, Hayes-Lattin B, Glover MJ, Shah SA, Gopalakrishnan D, Griffiths EA, Kwon DH, Koshkin VS, Mahmood S, Bashir B, Nonato T, Razavi P, McKay RR, Nagaraj G, Oligino E, Puc M, Tregubenko P, Wulff-Burchfield EM, Xie Z, Halfdanarson TR, Farmakiotis D, Klein EJ, Robilotti EV, Riely GJ, Durand JB, **Hayek SS**, Kondapalli L, Berg S, O'Connor TE, Bilen MA, Castellano C, Accordino MK, Sibel B, Weissmann LB, Jani C, Flora DB, Rudski L, Dutra MS, Nathaniel B, Ruiz-García E, Vilar-Compte D, Gupta S, Morgans A, Nohria A, COVID-19 and Cancer Consortium. COVID-19 severity and cardiovascular outcomes in SARS-CoV-2-infected patients with cancer and cardiovascular disease. *Transl Oncol.* 2023;34:101709.
- Wei C, Datta PK, Siegerist F, Li J, Yashwanth S, Koh KH, Kriho NW, Ismail A, Luo S, Fischer T, Amber KT, Cimbaluk D, Landay A, Endlich N, Rappaport J, Michigan Medicine COVID-19 Investigators, **Hayek SS**, Reiser J. SuPAR mediates viral response proteinuria by rapidly changing podocyte function. *Nat Commun.* 2023;14(1):4414.
- Nussag C, Wei C, Hahm E, **Hayek SS**, Li J, Samelko B, Rupp C, Szudarek R, Speer C, Kälble F, Schaier M, Uhle F, Schmitt FC, Fiedler MO, Krautkrämer E, Cao Y, Rodriguez R, Merle U, Eugen-Olsen J, Zeier M, Weigand MA, Morath C, Brenner T, Reiser J. suPAR links a dysregulated immune response to tissue inflammation and sepsis-induced acute kidney injury. *JCI Insight.* 2023;8(7).
- Sammour YM, Spertus JA, Kennedy K, Morrow DA, Daniels LB, Jones P, Alger H, Stevens L, Shah A, Goel SS, de Lemos JA, **Hayek SS**, Sutton NR, Kleiman NS. Site-level variability in the processes of care and outcomes over time among patients with COVID-19 and myocardial injury: Insights from the American Heart Association's COVID-19 Cardiovascular Disease Registry. *Am Heart J Plus.* 2023;27:100265.
- **Hayek SS**, Tahhan AS, Ko YA, Alkhoder A, Zheng S, Bhimani R, Hartsfield J, Kim J, Wilson P, Shaw L, Wei C, Reiser J, Quyyumi AA. Soluble Urokinase Plasminogen Activator Receptor Levels and Outcomes in Patients with Heart Failure. *J Card Fail.* 2023;29(2):158-167.
- Balinski AM, Vasbinder AL, Kerndt CC, Catalan TC, Parry NP, Rehman RA, Blakely P, Yeow RY, Leja MJ, Lao CD, Fecher LA, **Hayek SS**. Metastatic melanoma of the heart: Retrospective cohort study and systematic review of prevalence, clinical characteristics, and outcomes. *Cancer Med.* 2023;12(3):2356-2367.
- O'Hayer PJ, Vasbinder A, Anderson E, Catalan T, Bitterman B, Khaleel I, Erne G, Tekumulla A, Tilley C, Presswalla F, Nelapudi N, Chen J, Tripathi M, Rochlen M, Rambo L, Sulaiman N, Blakely P, Huang Y, Zhao L, Pop-Busui R, **Hayek SS**. Evolution of Care and Outcomes Across Surges in Hospitalized Patients with Coronavirus Disease 2019. *Am J Med.* 2023;136(1):63-71.e1.
- Vasbinder A, Raffield LM, Gao Y, Engstrom G, Quyyumi AA, Reiner AP, Reiser J, **Hayek SS**. Assay-related differences in SuPAR levels: implications for measurement and data interpretation. *J Nephrol.* 2023;36(1):157-159.
- Hindy G, Tyrrell DJ, Vasbinder A, Wei C, Presswalla F, Wang H, Blakely P, Ozel AB, Graham S, Holton GH, Dowsett J, Fahed AC, Amadi KM, Erne GK, Tekmulla A, Ismail A, Launius C, Sotoodehnia N, Pankow JS, Thøner LW, Erikstrup C, Pedersen OB, Banasik K, Brunak S, Ullum H, Eugen-Olsen J, Ostrowski SR, DBDS Consortium, Haas ME, Nielsen JB, Lotta LA, Regeneron Genetics Center, Engström G, Melander O, Orho-Melander M, Zhao L, Murthy VL, Pinsky DJ, Willer CJ, Heckbert SR, Reiser J, Goldstein DR, Desch KC, **Hayek SS**. Increased soluble urokinase plasminogen activator levels modulate monocyte function to promote atherosclerosis. *J Clin Invest.* 2022;132(24).
- Vasbinder A, Chen Y, Procureur A, Gradone A, Azam TU, Perry D, Shadid H, Anderson E, Catalan T, Blakely P, Nelapudi N, Fardous M, Bretagne MC, Adie SK, Pogue KT, Leja M, Yentz S, Schneider B, Fecher LA, Lao CD, Salem JE, **Hayek SS**.

Biomarker Trends, Incidence, and Outcomes of Immune Checkpoint Inhibitor-Induced Myocarditis. *JACC CardioOncol.* 2022;4(5):689-700.

- Risk M, **Hayek SS**, Schioppa E, Yuan L, Shen C, Shi X, Freed G, Zhao L. COVID-19 vaccine effectiveness against omicron (B.1.1.529) variant infection and hospitalisation in patients taking immunosuppressive medications: a retrospective cohort study. *Lancet Rheumatol.* 2022;4(11):e775-e784.
- Vasbinder A, Meloche C, Azam TU, Anderson E, Catalan T, Shadid H, Berlin H, Pan M, O'Hayer P, Padalia K, Blakely P, Khaleel I, Michaud E, Huang Y, Zhao L, Pop-Busui R, Gupta S, Eagle K, Leaf DE, **Hayek SS**, STOP-COVID Investigators†. Relationship Between Preexisting Cardiovascular Disease and Death and Cardiovascular Outcomes in Critically Ill Patients With COVID-19. *Circ Cardiovasc Qual Outcomes.* 2022;15(10):e008942.
- Ganatra S, Dani SS, Kumar A, Khan SU, Wadhera R, Neilan TG, Thavendiranathan P, Barac A, Hermann J, Leja M, Deswal A, Fradley M, Liu JE, Sadler D, Asnani A, Baldassarre LA, Gupta D, Yang E, Guha A, Brown SA, Stevens J, **Hayek SS**, Porter C, Kalra A, Baron SJ, Ky B, Virani SS, Kazi D, Nasir K, Nohria A. Impact of Social Vulnerability on Comorbid Cancer and Cardiovascular Disease Mortality in the United States. *JACC CardioOncol.* 2022;4(3):326-337.
- Luo S, Vasbinder A, Du-Fay-de-Lavallaz JM, Gomez JMD, Suboc T, Anderson E, Tekumulla A, Shadid H, Berlin H, Pan M, Azam TU, Khaleel I, Padalia K, Meloche C, O'Hayer P, Catalan T, Blakely P, Launius C, Amadi KM, Pop-Busui R, Loosen SH, Chalkias A, Tacke F, Giamarellos-Bourboulis EJ, Altintas I, Eugen-Olsen J, Williams KA, Volgman AS, Reiser J, **Hayek SS**, ISIC (International Study of Inflammation in COVID-19) Group. Soluble Urokinase Plasminogen Activator Receptor and Venous Thromboembolism in COVID-19. *J Am Heart Assoc.* 2022;11(18):e025198.
- Risk M, Shen C, **Hayek SS**, Holevinski L, Schioppa E, Freed G, Akin C, Zhao L. Comparative Effectiveness of Coronavirus Disease 2019 (COVID-19) Vaccines Against the Delta Variant. *Clin Infect Dis.* 2022;75(1):e623-e629.
- Shen C, Risk M, Schioppa E, **Hayek SS**, Xie T, Holevinski L, Akin C, Freed G, Zhao L. Efficacy of COVID-19 vaccines in patients taking immunosuppressants. *Ann Rheum Dis.* 2022;81(6):875-880.
- Power JR, Alexandre J, Choudhary A, Ozbay B, **Hayek SS**, Asnani A, Tamura Y, Aras M, Cautela J, Thuny F, Gilstrap L, Arangalage D, Ewer S, Huang S, Deswal A, Palaskas NL, Finke D, Lehmann LH, Ederhy S, Moslehi J, Salem JE, International ICI-Myocarditis Registry. Association of early electrical changes with cardiovascular outcomes in immune checkpoint inhibitor myocarditis. *Arch Cardiovasc Dis.* 2022;115(5):315-330.
- Brenner SK, Azam TU, Parrillo JE, Hollenberg SM, Anderson E, O'Hayer P, Berlin H, Blakely P, Bitar A, **Hayek SS**. Right Ventricular Dysfunction in Critically Ill Patients With COVID-19. *Am J Cardiol.* 2022;168:176-178.
- Azam TU, Berlin H, Anderson E, Pan M, Shadid HR, Padalia K, O'Hayer P, Meloche C, Feroze R, Michaud E, Launius C, Blakely P, Bitar A, Willer C, Pop-Busui R, Carethers JM, **Hayek SS**. Differences in Inflammation, Treatment, and Outcomes Between Black and Non-Black Patients Hospitalized for COVID-19: A Prospective Cohort Study. *Am J Med.* 2022;135(3):360-368.
- Vasbinder A, Anderson E, Shadid H, Berlin H, Pan M, Azam TU, Khaleel I, Padalia K, Meloche C, O'Hayer P, Michaud E, Catalan T, Feroze R, Blakely P, Launius C, Huang Y, Zhao L, Ang L, Mikhael M, Mizokami-Stout K, Pennathur S, Kretzler M, Loosen SH, Chalkias A, Tacke F, Giamarellos-Bourboulis EJ, Reiser J, Eugen-Olsen J, Feldman EL, Pop-Busui R, **Hayek SS**, ISIC Study Group. Inflammation, Hyperglycemia, and Adverse Outcomes in Individuals With Diabetes Mellitus Hospitalized for COVID-19. *Diabetes Care.* 2022;45(3):692-700.
- Wanner N, Andrieux G, Badia-I-Mompel P, Edler C, Pfefferle S, Lindenmeyer MT, Schmidt-Lauber C, Czogalla J, Wong MN, Okabayashi Y, Braun F, Lütgehetmann M, Meister E, Lu S, Noriega MLM, Günther T, Grundhoff A, Fischer N, Bräuninger H, Lindner D, Westermann D, Haas F, Roedl K, Kluge S, Addo MM, Huber S, Lohse AW, Reiser J, Ondruschka B, Sperhake JP, Saez-Rodriguez J, Boerries M, **Hayek SS**, Aepfelbacher M, Scaturro P, Puelles VG, Huber TB. Molecular consequences of SARS-CoV-2 liver tropism. *Nat Metab.* 2022;4(3):310-319.
- Hladunewich MA, Cattran D, Sethi SM, **Hayek SS**, Li J, Wei C, Mullin SI, Reich HN, Reiser J, Fervenza FC. Efficacy of Rituximab in Treatment-Resistant Focal Segmental Glomerulosclerosis With Elevated Soluble Urokinase-Type Plasminogen Activator Receptor and Activation of Podocyte $\beta 3$ Integrin. *Kidney Int Rep.* 2022;7(1):68-77.
- Pan M, Vasbinder A, Anderson E, Catalan T, Shadid HR, Berlin H, Padalia K, O'Hayer P, Meloche C, Azam TU, Khaleel I, Michaud E, Blakely P, Bitar A, Huang Y, Zhao L, Pop-Busui R, Loosen SH, Chalkias A, Tacke F, Giamarellos-Bourboulis EJ,

Reiser J, Eugen-Olsen J, **Hayek SS**, ISIC Group. Angiotensin-Converting Enzyme Inhibitors, Angiotensin II Receptor Blockers, and Outcomes in Patients Hospitalized for COVID-19. *J Am Heart Assoc*. 2021;10(24):e023535.

- Power JR, Alexandre J, Choudhary A, Ozbay B, **Hayek S**, Asnani A, Tamura Y, Aras M, Cautela J, Thuny F, Gilstrap L, Arangalage D, Ewer S, Huang S, Deswal A, Palaskas NL, Finke D, Lehman L, Ederhy S, Moslehi J, Salem JE, International ICI-Myocarditis Registry†. Electrocardiographic Manifestations of Immune Checkpoint Inhibitor Myocarditis. *Circulation*. 2021;144(18):1521-1523.

- **Hayek SS**, Roderburg C, Blakely P, Launius C, Eugen-Olsen J, Tacke F, Ktena S, Keitel V, Luedde M, Giamarellos-Bourboulis EJ, Luedde T, Loosen SH. Circulating Osteopontin Levels and Outcomes in Patients Hospitalized for COVID-19. *J Clin Med*. 2021;10(17).

- Acharya P, Ranka S, Sethi P, Bharati R, Hu J, Noheria A, Nallamotheu BK, **Hayek SS**, Gupta K. Incidence, Predictors, and Outcomes of In-Hospital Cardiac Arrest in COVID-19 Patients Admitted to Intensive and Non-Intensive Care Units: Insights From the AHA COVID-19 CVD Registry. *J Am Heart Assoc*. 2021;10(16):e021204.

- Churpek MM, Gupta S, Spicer AB, **Hayek SS**, Srivastava A, Chan L, Melamed ML, Brenner SK, Radbel J, Madhani-Lovely F, Bhatraju PK, Bansal A, Green A, Goyal N, Shaeff S, Parikh CR, Semler MW, Leaf DE, STOP-COVID Investigators. Machine Learning Prediction of Death in Critically Ill Patients With Coronavirus Disease 2019. *Crit Care Explor*. 2021;3(8):e0515.

- Tehrani DM, Wang X, Rafique AM, **Hayek SS**, Herrmann J, Neilan TG, Desai P, Morgans A, Lopez-Mattei J, Parikh RV, Yang EH. Impact of cancer and cardiovascular disease on in-hospital outcomes of COVID-19 patients: results from the american heart association COVID-19 cardiovascular disease registry. *Cardiooncology*. 2021;7(1):28.

- Mathews KS, Soh H, Shaeff S, Wang W, Bose S, Coca S, Gupta S, **Hayek SS**, Srivastava A, Brenner SK, Radbel J, Green A, Sutherland A, Leonberg-Yoo A, Shehata A, Schenck EJ, Short SAP, Hernán MA, Chan L, Leaf DE, STOP-COVID Investigators. Prone Positioning and Survival in Mechanically Ventilated Patients With Coronavirus Disease 2019-Related Respiratory Failure. *Crit Care Med*. 2021;49(7):1026-1037.

- Tehrani D, Wang X, Rafique AM, **Hayek SS**, Herrmann J, Neilan TG, Desai P, Morgans A, Lopez-Mattei J, Parikh RV, Yang EH. Impact of Cancer and Cardiovascular Disease on In-Hospital Outcomes of COVID-19 Patients: Results From the American Heart Association COVID-19 Cardiovascular Disease Registry. *Res Sq*. 2021.

- Al-Samkari H, Gupta S, Leaf RK, Wang W, Rosovsky RP, Brenner SK, **Hayek SS**, Berlin H, Kapoor R, Shaeff S, Melamed ML, Sutherland A, Radbel J, Green A, Garibaldi BT, Srivastava A, Leonberg-Yoo A, Shehata AM, Flythe JE, Rashidi A, Goyal N, Chan L, Mathews KS, Hedayati SS, Dy R, Toth-Manikowski SM, Zhang J, Mallappallil M, Redfern RE, Bansal AD, Short SAP, Vangel MG, Admon AJ, Semler MW, Bauer KA, Hernán MA, Leaf DE, STOP-COVID Investigators. Thrombosis, Bleeding, and the Observational Effect of Early Therapeutic Anticoagulation on Survival in Critically Ill Patients With COVID-19. *Ann Intern Med*. 2021;174(5):622-632.

- Short SAP, Gupta S, Brenner SK, **Hayek SS**, Srivastava A, Shaeff S, Singh H, Wu B, Bagchi A, Al-Samkari H, Dy R, Wilkinson K, Zakai NA, Leaf DE, STOP-COVID Investigators. d-dimer and Death in Critically Ill Patients With Coronavirus Disease 2019. *Crit Care Med*. 2021;49(5):e500-e511.

- Werfel S, Lorenz G, Haller B, Günthner R, Matschkal J, Braunisch MC, Schaller C, Gundel P, Kemmner S, **Hayek SS**, Nussbag C, Reiser J, Moog P, Heemann U, Schmaderer C. Application of regularized regression to identify novel predictors of mortality in a cohort of hemodialysis patients. *Sci Rep*. 2021;11(1):9287.

- Morath C, **Hayek SS**, Döhler B, Nussbag C, Sommerer C, Zeier M, Reiser J, Süsal C. Soluble Urokinase Receptor and Mortality in Kidney Transplant Recipients. *Transpl Int*. 2021;35:10071.

- Shaeff S, Brenner SK, Gupta S, O’Gara BP, Krajewski ML, Charytan DM, Chaudhry S, Mirza SH, Peev V, Anderson M, Bansal A, **Hayek SS**, Srivastava A, Mathews KS, Johns TS, Leonberg-Yoo A, Green A, Arunthamkun J, Wille KM, Shaukat T, Singh H, Admon AJ, Semler MW, Hernán MA, Mueller AL, Wang W, Leaf DE, STOP-COVID Investigators. Extracorporeal membrane oxygenation in patients with severe respiratory failure from COVID-19. *Intensive Care Med*. 2021;47(2):208-221.

- Wu KH, Hornsby WE, Klunder B, Krause A, Driscoll A, Kulka J, Bickett-Hickok R, Fellows A, Graham S, Kaleba EO, **Hayek SS**, Shi X, Sutton NR, Douville N, Mukherjee B, Jamerson K, Brummett CM, Willer CJ. Exposure and risk factors for COVID-19 and the impact of staying home on Michigan residents. *PLoS One*. 2021;16(2):e0246447.

- Gupta S, Coca SG, Chan L, Melamed ML, Brenner SK, **Hayek SS**, Sutherland A, Puri S, Srivastava A, Leonberg-Yoo A, Shehata AM, Flythe JE, Rashidi A, Schenck EJ, Goyal N, Hedayati SS, Dy R, Bansal A, Athavale A, Nguyen HB, Vijayan A, Charytan DM, Schulze CE, Joo MJ, Friedman AN, Zhang J, Sosa MA, Judd E, Velez JCQ, Mallappallil M, Redfern RE, Bansal AD, Neyra JA, Liu KD, Renaghan AD, Christov M, Molnar MZ, Sharma S, Kamal O, Boateng JO, Short SAP, Admon AJ, Sise ME, Wang W, Parikh CR, Leaf DE, and the STOP-COVID Investigators. AKI Treated with Renal Replacement Therapy in Critically Ill Patients with COVID-19. *J Am Soc Nephrol*. 2021;32(1):161-176.
- Gupta S, Wang W, **Hayek SS**, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Finkel D, Green A, Mallappallil M, Faugno AJ, Zhang J, Velez JCQ, Shaefi S, Parikh CR, Charytan DM, Athavale AM, Friedman AN, Redfern RE, Short SAP, Correa S, Pokharell KK, Admon AJ, Donnelly JP, Gershengorn HB, Douin DJ, Semler MW, Hernán MA, Leaf DE, STOP-COVID Investigators. Association Between Early Treatment With Tocilizumab and Mortality Among Critically Ill Patients With COVID-19. *JAMA Intern Med*. 2021;181(1):41-51.
- Azam TU, Shadid HR, Blakely P, O'Hayer P, Berlin H, Pan M, Zhao P, Zhao L, Pennathur S, Pop-Busui R, Altintas I, Tingleff J, Stauning MA, Andersen O, Adami ME, Solomonidi N, Tsilika M, Tober-Lau P, Arnaoutoglou E, Keitel V, Tacke F, Chalkias A, Loosen SH, Giamarellos-Bourboulis EJ, Eugen-Olsen J, Reiser J, **Hayek SS**, International Study of Inflammation in COVID-19. Soluble Urokinase Receptor (SuPAR) in COVID-19-Related AKI. *J Am Soc Nephrol*. 2020;31(11):2725-2735.
- Ganatra S, Dani SS, Redd R, Rieger-Christ K, Patel R, Parikh R, Asnani A, Bang V, Shreyder K, Brar SS, Singh A, Kazi DS, Guha A, **Hayek SS**, Barac A, Gunturu KS, Zarwan C, Mosenthal AC, Yunus SA, Kumar A, Patel JM, Patten RD, Venesy DM, Shah SP, Resnic FS, Nohria A, Baron SJ. Outcomes of COVID-19 in Patients With a History of Cancer and Comorbid Cardiovascular Disease. *J Natl Compr Canc Netw*. 2020:1-10.
- Gupta S, **Hayek SS**, Wang W, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Sutherland A, Green A, Shehata AM, Goyal N, Vijayan A, Velez JCQ, Shaefi S, Parikh CR, Arunthamkun J, Athavale AM, Friedman AN, Short SAP, Kibbelaar ZA, Abu Omar S, Admon AJ, Donnelly JP, Gershengorn HB, Hernán MA, Semler MW, Leaf DE, STOP-COVID Investigators. Factors Associated With Death in Critically Ill Patients With Coronavirus Disease 2019 in the US. *JAMA Intern Med*. 2020;180(11):1436-1447.
- Molnar MZ, Bhalla A, Azhar A, Tsujita M, Talwar M, Balaraman V, Sodhi A, Kadaria D, Eason JD, **Hayek SS**, Coca SG, Shaefi S, Neyra JA, Gupta S, Leaf DE, Kovesdy CP, STOP-COVID Investigators. Outcomes of critically ill solid organ transplant patients with COVID-19 in the United States. *Am J Transplant*. 2020;20(11):3061-3071.
- Ganatra S, Redd R, **Hayek SS**, Parikh R, Azam T, Yanik GA, Spendley L, Nikiforow S, Jacobson C, Nohria A. Chimeric Antigen Receptor T-Cell Therapy-Associated Cardiomyopathy in Patients With Refractory or Relapsed Non-Hodgkin Lymphoma. *Circulation*. 2020;142(17):1687-1690.
- Gujral UP, Mehta A, Sher S, Uphoff I, Kumar S, **Hayek SS**, Ko YA, Martin GS, Gibbons GH, Quyyumi AA. Ethnic differences in subclinical vascular function in South Asians, Whites, and African Americans in the United States. *Int J Cardiol Heart Vasc*. 2020;30:100598.
- **Hayek SS**, Brenner SK, Azam TU, Shadid HR, Anderson E, Berlin H, Pan M, Meloche C, Feroz R, O'Hayer P, Kaakati R, Bitar A, Padalia K, Perry D, Blakely P, Gupta S, Shaefi S, Srivastava A, Charytan DM, Bansal A, Mallappallil M, Melamed ML, Shehata AM, Sunderram J, Mathews KS, Sutherland AK, Nallamotheu BK, Leaf DE, STOP-COVID Investigators. In-hospital cardiac arrest in critically ill patients with covid-19: multicenter cohort study. *BMJ*. 2020;371:m3513.
- Mehta A, Liu C, Nayak A, Tahhan AS, Ko YA, Dhindsa DS, Kim JH, **Hayek SS**, Sperling LS, Mehta PK, Sun YV, Uppal K, Jones DP, Quyyumi AA. Untargeted high-resolution plasma metabolomic profiling predicts outcomes in patients with coronary artery disease. *PLoS One*. 2020;15(8):e0237579.
- Iversen E, Houliand MB, Kallemose T, Rasmussen LJH, Hornum M, Feldt-Rasmussen B, **Hayek SS**, Andersen O, Eugen-Olsen J. Elevated suPAR Is an Independent Risk Marker for Incident Kidney Disease in Acute Medical Patients. *Front Cell Dev Biol*. 2020;8:339.
- Rovina N, Akinosoglou K, Eugen-Olsen J, **Hayek S**, Reiser J, Giamarellos-Bourboulis EJ. Soluble urokinase plasminogen activator receptor (suPAR) as an early predictor of severe respiratory failure in patients with COVID-19 pneumonia. *Crit Care*. 2020;24(1):187.

- Lv L, Wang F, Wu L, Wang JW, Cui Z, **Hayek SS**, Wei C, Reiser J, He K, Zhang L, Chen M, Zhao MH. Soluble urokinase-type plasminogen activator receptor and incident end-stage renal disease in Chinese patients with chronic kidney disease. *Nephrol Dial Transplant*. 2020;35(3):465-470.
- Mehta A, Desai SR, Ko YA, Liu C, Dhindsa DS, Nayak A, Hooda A, Martini MA, Ejaz K, Sperling LS, Reiser J, **Hayek SS**, Quyyumi AA. Sex Differences in Circulating Soluble Urokinase-Type Plasminogen Activator Receptor (suPAR) Levels and Adverse Outcomes in Coronary Artery Disease. *J Am Heart Assoc*. 2020;9(5):e015457.
- **Hayek SS**, Leaf DE, Samman Tahhan A, Raad M, Sharma S, Waikar SS, Sever S, Camacho A, Wang X, Dande RR, Ibrahim NE, Baron RM, Altintas MM, Wei C, Sheikh-Hamad D, Pan JS, Holliday MW, Januzzi JL, Weisbord SD, Quyyumi AA, Reiser J. Soluble Urokinase Receptor and Acute Kidney Injury. *N Engl J Med*. 2020;382(5):416-426.
- Kelli HM, Mehta A, Tahhan AS, Liu C, Kim JH, Dong TA, Dhindsa DS, Ghazzal B, Choudhary MK, Sandesara PB, **Hayek SS**, Topel ML, Alkhoder AA, Martini MA, Sidoti A, Ko YA, Lewis TT, Vaccarino V, Sperling LS, Quyyumi AA. Low Educational Attainment is a Predictor of Adverse Outcomes in Patients With Coronary Artery Disease. *J Am Heart Assoc*. 2019;8(17):e013165.
- **Hayek SS**, Landsittel DP, Wei C, Zeier M, Yu ASL, Torres VE, Roth S, Pao CS, Reiser J. Soluble Urokinase Plasminogen Activator Receptor and Decline in Kidney Function in Autosomal Dominant Polycystic Kidney Disease. *J Am Soc Nephrol*. 2019;30(7):1305-1313.
- Wei C, Li J, Adair BD, Zhu K, Cai J, Merchant M, Samelko B, Liao Z, Koh KH, Tardi NJ, Dande RR, Liu S, Ma J, Dibartolo S, Hägele S, Peev V, **Hayek SS**, Cimbalku DJ, Tracy M, Klein J, Sever S, Shattil SJ, Arnaout MA, Reiser J. uPAR isoform 2 forms a dimer and induces severe kidney disease in mice. *J Clin Invest*. 2019;129(5):1946-1959.
- Kim JH, **Hayek SS**, Ko YA, Liu C, Samman Tahhan A, Ali S, Alkhoder A, Gafeer MM, Choudhary F, Bhimani R, Delawalla S, Choudhary M, Hartsfield DJ, Bliwise DL, Quyyumi AA. Sleep Duration and Mortality in Patients With Coronary Artery Disease. *Am J Cardiol*. 2019;123(6):874-881.
- Topel ML, Sandesara PB, Stahl EP, **Hayek SS**, Tahhan AS, O'Neal WT, Ko YA, Alkhoder A, Gafeer MM, Kim JH, Wilson PWF, Shaw LJ, Epstein SE, Vaccarino V, Sperling LS, Quyyumi AA. Mechanisms underlying the J-curve for diastolic blood pressure: Subclinical myocardial injury and immune activation. *Int J Cardiol*. 2019;276:255-260.
- Maes F, Lerakis S, Barbosa Ribeiro H, Gilard M, Cavalcante JL, Makkar R, Herrmann HC, Windecker S, Enriquez-Sarano M, Cheema AN, Nombela-Franco L, Amat-Santos I, Muñoz-García AJ, Garcia Del Blanco B, Zajarias A, Lisko JC, **Hayek S**, Babaliaros V, Le Ven F, Gleason TG, Chakravarty T, Szeto W, Clavel MA, de Agustin A, Serra V, Schindler JT, Dahou A, Salah-Annabi M, Pelletier-Beaumont E, Côté M, Puri R, Pibarot P, Rodés-Cabau J. Outcomes From Transcatheter Aortic Valve Replacement in Patients With Low-Flow, Low-Gradient Aortic Stenosis and Left Ventricular Ejection Fraction Less Than 30%: A Substudy From the TOPAS-TAVI Registry. *JAMA Cardiol*. 2019;4(1):64-70.
- Samman Tahhan A, Hammadah M, Kelli HM, Kim JH, Sandesara PB, Alkhoder A, Kaseer B, Gafeer MM, Topel M, **Hayek SS**, O'Neal WT, Obideen M, Ko YA, Liu C, Hesaroieh I, Mahar E, Vaccarino V, Waller EK, Quyyumi AA. Circulating Progenitor Cells and Racial Differences. *Circ Res*. 2018;123(4):467-476.
- Luo S, Coresh J, Tin A, Rebholz CM, Chen TK, **Hayek SS**, Tracy M, Lipkowitz MS, Appel LJ, Levey AS, Inker LA, Reiser J, Grams ME. Soluble Urokinase-Type Plasminogen Activator Receptor in Black Americans with CKD. *Clin J Am Soc Nephrol*. 2018;13(7):1013-1021.
- Sandesara PB, O'Neal WT, Tahhan AS, **Hayek SS**, Lee SK, Khambhati J, Topel ML, Hammadah M, Alkhoder A, Ko YA, Gafeer MM, Beshiri A, Murtagh G, Kim JH, Wilson P, Shaw L, Epstein SE, Sperling LS, Quyyumi AA. Comparison of the Association Between High-Sensitivity Troponin I and Adverse Cardiovascular Outcomes in Patients With Versus Without Chronic Kidney Disease. *Am J Cardiol*. 2018;121(12):1461-1466.
- **Hayek SS**, Divers J, Raad M, Xu J, Bowden DW, Tracy M, Reiser J, Freedman BI. Predicting Mortality in African Americans With Type 2 Diabetes Mellitus: Soluble Urokinase Plasminogen Activator Receptor, Coronary Artery Calcium, and High-Sensitivity C-Reactive Protein. *J Am Heart Assoc*. 2018;7(9).
- Samman Tahhan A, Hammadah M, Raad M, Almuwaqqat Z, Alkhoder A, Sandesara PB, Mohamed-Kelli H, **Hayek SS**, Kim JH, O'Neal WT, Topel ML, Grant AJ, Sabbak N, Heintz RE, Gafeer MM, Obideen M, Kaseer B, Abdelhadi N, Ko YA, Liu C, Hesaroieh I, Mahar EA, Vaccarino V, Waller EK, Quyyumi AA. Progenitor Cells and Clinical Outcomes in Patients With Acute Coronary Syndromes. *Circ Res*. 2018;122(11):1565-1575.

- Ribeiro HB, Lerakis S, Gilard M, Cavalcante JL, Makkar R, Herrmann HC, Windecker S, Enriquez-Sarano M, Cheema AN, Nombela-Franco L, Amat-Santos I, Muñoz-García AJ, García Del Blanco B, Zajarias A, Lisko JC, **Hayek S**, Babaliaros V, Le Ven F, Gleason TG, Chakravarty T, Szeto WY, Clavel MA, de Agustin A, Serra V, Schindler JT, Dahou A, Puri R, Pelletier-Beaumont E, Côté M, Pibarot P, Rodés-Cabau J. Transcatheter Aortic Valve Replacement in Patients With Low-Flow, Low-Gradient Aortic Stenosis: The TOPAS-TAVI Registry. *J Am Coll Cardiol*. 2018;71(12):1297-1308.
- Samman Tahhan A, Sandesara P, **Hayek SS**, Hammadah M, Alkhoder A, Kelli HM, Topel M, O'Neal WT, Ghasemzadeh N, Ko YA, Gafeer MM, Abdelhadi N, Choudhary F, Patel K, Beshiri A, Murtagh G, Kim J, Wilson P, Shaw L, Vaccarino V, Epstein SE, Sperling L, Quyyumi AA. High-Sensitivity Troponin I Levels and Coronary Artery Disease Severity, Progression, and Long-Term Outcomes. *J Am Heart Assoc*. 2018;7(5).
- Corrigan FE, Zhou X, Lisko JC, **Hayek SS**, Parastatidis I, Keegan P, Howell S, Thourani V, Babaliaros VC, Lerakis S. Mean Aortic pressure gradient and global longitudinal strain recovery after transcatheter aortic valve replacement - A retrospective analysis. *Hellenic J Cardiol*. 2018;59(5):268-271.
- Hajjar I, **Hayek SS**, Goldstein FC, Martin G, Jones DP, Quyyumi A. Oxidative stress predicts cognitive decline with aging in healthy adults: an observational study. *J Neuroinflammation*. 2018;15(1):17.
- Ko YA, **Hayek S**, Sandesara P, Samman Tahhan A, Quyyumi A. Cohort profile: the Emory Cardiovascular Biobank (EmCAB). *BMJ Open*. 2017;7(12):e018753.
- Samman Tahhan A, Sandesara PB, **Hayek SS**, Alkhoder A, Chivukula K, Hammadah M, Mohamed-Kelli H, O'Neal WT, Topel M, Ghasemzadeh N, Ko YA, Aida H, Gafeer M, Sperling L, Vaccarino V, Liang Y, Jones DP, Quyyumi AA. Association between oxidative stress and atrial fibrillation. *Heart Rhythm*. 2017;14(12):1849-1855.
- Schultz WM, **Hayek SS**, Samman Tahhan A, Ko YA, Sandesara P, Awad M, Mohammed KH, Patel K, Yuan M, Zheng S, Topel ML, Hartsfield J, Bhimani R, Varghese T, Kim JH, Shaw L, Wilson P, Vaccarino V, Quyyumi AA. Marital Status and Outcomes in Patients With Cardiovascular Disease. *J Am Heart Assoc*. 2017;6(12).
- Schaefer F, Trachtman H, Wühl E, Kirchner M, **Hayek SS**, Anarat A, Duzova A, Mir S, Paripovic D, Yilmaz A, Lugani F, Arbeiter K, Litwin M, Oh J, Matteucci MC, Gellermann J, Wygoda S, Jankauskiene A, Klaus G, Dusek J, Testa S, Zurowska A, Caldas Afonso A, Tracy M, Wei C, Sever S, Smoyer W, Reiser J, ESCAPE Trial Consortium and the 4C Study Group. Association of Serum Soluble Urokinase Receptor Levels With Progression of Kidney Disease in Children. *JAMA Pediatr*. 2017;171(11):e172914.
- Topel ML, **Hayek SS**, Ko YA, Sandesara PB, Samman Tahhan A, Hesaroieh I, Mahar E, Martin GS, Waller EK, Quyyumi AA. Sex Differences in Circulating Progenitor Cells. *J Am Heart Assoc*. 2017;6(10).
- Corrigan FE, Kelli HM, Dhindsa DS, Heintz RE, Al Mheid I, Hammadah M, **Hayek SS**, Sher S, Eapen DJ, Martin GS, Quyyumi AA. Changes in truncal obesity and fat distribution predict arterial health. *J Clin Lipidol*. 2017;11(6):1354-1360.e3.
- Samman Tahhan A, **Hayek SS**, Sandesara P, Hajjari J, Hammadah M, O'Neal WT, Kelli HM, Alkhoder A, Ghasemzadeh N, Ko YA, Aida H, Gafeer MM, Abdelhadi N, Mohammed KH, Patel K, Arya S, Reiser J, Vaccarino V, Sperling L, Quyyumi A. Circulating soluble urokinase plasminogen activator receptor levels and peripheral arterial disease outcomes. *Atherosclerosis*. 2017;264:108-114.
- **Hayek SS**, Koh KH, Grams ME, Wei C, Ko YA, Li J, Samelko B, Lee H, Dande RR, Lee HW, Hahm E, Peev V, Tracy M, Tardi NJ, Gupta V, Altintas MM, Garborcauskas G, Stojanovic N, Winkler CA, Lipkowitz MS, Tin A, Inker LA, Levey AS, Zeier M, Freedman BI, Kopp JB, Skorecki K, Coresh J, Quyyumi AA, Sever S, Reiser J. A tripartite complex of suPAR, APOL1 risk variants and α . *Nat Med*. 2017;23(8):945-953.
- Drechsler C, **Hayek SS**, Wei C, Sever S, Genser B, Krane V, Meinitzer A, März W, Wanner C, Reiser J. Soluble Urokinase Plasminogen Activator Receptor and Outcomes in Patients with Diabetes on Hemodialysis. *Clin J Am Soc Nephrol*. 2017;12(8):1265-1273.
- Samman Tahhan A, Hammadah M, Sandesara PB, **Hayek SS**, Kalogeropoulos AP, Alkhoder A, Mohamed Kelli H, Topel M, Ghasemzadeh N, Chivukula K, Ko YA, Aida H, Hesaroieh I, Mahar E, Kim JH, Wilson P, Shaw L, Vaccarino V, Waller EK, Quyyumi AA. Progenitor Cells and Clinical Outcomes in Patients With Heart Failure. *Circ Heart Fail*. 2017;10(8).

- **Hayek SS**, Corrigan FE, Condado JF, Lin S, Howell S, MacNamara JP, Spiliadis N, Zheng S, Keegan P, Thourani V, Babaliaros VC, Lerakis S. Paravalvular Regurgitation after Transcatheter Aortic Valve Replacement: Comparing Transthoracic versus Transesophageal Echocardiographic Guidance. *J Am Soc Echocardiogr*. 2017;30(6):533-540.
- **Hayek SS**, Ko YA, Awad M, Ahmed H, Gray B, Hosny KM, Aida H, Tracy MJ, Wei C, Sever S, Reiser J, Quyyumi AA. Cardiovascular Disease Biomarkers and suPAR in Predicting Decline in Renal Function: A Prospective Cohort Study. *Kidney Int Rep*. 2017;2(3):425-432.
- Zheng S, Lu JJ, Ghasemzadeh N, **Hayek SS**, Quyyumi AA, Wang F. Effective Information Extraction Framework for Heterogeneous Clinical Reports Using Online Machine Learning and Controlled Vocabularies. *JMIR Med Inform*. 2017;5(2):e12.
- **Hayek SS**, Klyachkin Y, Asfour A, Ghasemzadeh N, Awad M, Hesaroieih I, Ahmed H, Gray B, Kim J, Waller EK, Quyyumi AA, Abdel-Latif AK. Bioactive Lipids and Circulating Progenitor Cells in Patients with Cardiovascular Disease. *Stem Cells Transl Med*. 2017;6(3):731-735.
- **Hayek SS**, Ko YA, Awad M, Del Mar Soto A, Ahmed H, Patel K, Yuan M, Maddox S, Gray B, Hajjari J, Sperling L, Shah A, Vaccarino V, Quyyumi AA. Depression and chest pain in patients with coronary artery disease. *Int J Cardiol*. 2017;230:420-426.
- Ghasemzadeh N, **Hayek SS**, Ko YA, Eapen DJ, Patel RS, Manocha P, Al Kassem H, Khayata M, Veledar E, Kremastinos D, Thorball CW, Pielak T, Sikora S, Zafari AM, Lerakis S, Sperling L, Vaccarino V, Epstein SE, Quyyumi AA. Pathway-Specific Aggregate Biomarker Risk Score Is Associated With Burden of Coronary Artery Disease and Predicts Near-Term Risk of Myocardial Infarction and Death. *Circ Cardiovasc Qual Outcomes*. 2017;10(3).
- Mahar EA, Mou L, **Hayek SS**, Quyyumi AA, Waller EK. Flow cytometric data analysis of circulating progenitor cell stability. *Data Brief*. 2017;10:346-348.
- Hahm E, Wei C, Fernandez I, Li J, Tardi NJ, Tracy M, Wadhwani S, Cao Y, Peev V, Zloza A, Lusciks J, **Hayek SS**, O'Connor C, Bitzer M, Gupta V, Sever S, Sykes DB, Scadden DT, Reiser J. Bone marrow-derived immature myeloid cells are a main source of circulating suPAR contributing to proteinuric kidney disease. *Nat Med*. 2017;23(1):100-106.
- Imnadze G, Balzer S, Meyer B, Neumann J, Krech RH, Thale J, Franz N, Warnecke H, Awad K, **Hayek SS**, Devireddy C. Anatomic Patterns of Renal Arterial Sympathetic Innervation: New Aspects for Renal Denervation. *J Interv Cardiol*. 2016;29(6):594-600.
- Al Mheid I, Kelli HM, Ko YA, Hammadah M, Ahmed H, **Hayek S**, Vaccarino V, Ziegler TR, Gibson G, Lampl M, Alexander RW, Brigham K, Martin GS, Quyyumi AA. Effects of a Health-Partner Intervention on Cardiovascular Risk. *J Am Heart Assoc*. 2016;5(10).
- Mekonnen G, **Hayek SS**, Mehta PK, Li Q, Mahar E, Mou L, Kenkre TS, Petersen JW, Azarbal B, Samuels B, Anderson RD, Sedlak T, Zaya M, Agarwal M, Haftbaradaran A, Minissian M, Handberg E, Pepine CJ, Cogle CR, Bairey Merz CN, Waller EK, Quyyumi AA. Circulating progenitor cells and coronary microvascular dysfunction: Results from the NHLBI-sponsored Women's Ischemia Syndrome Evaluation - Coronary Vascular Dysfunction Study (WISE-CVD). *Atherosclerosis*. 2016;253:111-117.
- Al Mheid I, **Hayek SS**, Ko YA, Akbik F, Li Q, Ghasemzadeh N, Martin GS, Long Q, Hammadah M, Maziar Zafari A, Vaccarino V, Waller EK, Quyyumi AA. Age and Human Regenerative Capacity Impact of Cardiovascular Risk Factors. *Circ Res*. 2016;119(7):801-9.
- Mitchell AJ, Gray WD, **Hayek SS**, Ko YA, Thomas S, Rooney K, Awad M, Roback JD, Quyyumi A, Searles CD. Platelets confound the measurement of extracellular miRNA in archived plasma. *Sci Rep*. 2016;6:32651.
- **Hayek SS**, MacNamara J, Tahhan AS, Awad M, Yadalam A, Ko YA, Healy S, Hesaroieih I, Ahmed H, Gray B, Sher SS, Ghasemzadeh N, Patel R, Kim J, Waller EK, Quyyumi AA. Circulating Progenitor Cells Identify Peripheral Arterial Disease in Patients With Coronary Artery Disease. *Circ Res*. 2016;119(4):564-71.
- Ribeiro HB, Orwat S, **Hayek SS**, Larose É, Babaliaros V, Dahou A, Le Ven F, Pasian S, Puri R, Abdul-Jawad Altisent O, Campelo-Parada F, Clavel MA, Pibarot P, Lerakis S, Baumgartner H, Rodés-Cabau J. Cardiovascular Magnetic Resonance to Evaluate Aortic Regurgitation After Transcatheter Aortic Valve Replacement. *J Am Coll Cardiol*. 2016;68(6):577-585.
- Helgadóttir A, Gretarsdóttir S, Thorleifsson G, Hjartarson E, Sigurdsson A, Magnúsdóttir A, Jónasdóttir A, Kristjánsson H, Sulem P, Oddsson A, Sveinbjörnsson G, Steinthorsdóttir V, Rafnar T, Masson G, Jónsdóttir I, Olafsson I, Eyjólfsson GI, Sigurdardóttir O, Daneshpour MS, Khalili D, Azizi F, Swinkels DW, Kiemeny L, Quyyumi AA, Levey AI, Patel RS, **Hayek SS**,

Gudmundsdottir IJ, Thorgeirsson G, Thorsteinsdottir U, Gudbjartsson DF, Holm H, Stefansson K. Variants with large effects on blood lipids and the role of cholesterol and triglycerides in coronary disease. *Nat Genet.* 2016;48(6):634-9.

• Nioi P, Sigurdsson A, Thorleifsson G, Helgason H, Agustsdottir AB, Norddahl GL, Helgadottir A, Magnusdottir A, Jonasdottir A, Gretarsdottir S, Jonsdottir I, Steinthorsdottir V, Rafnar T, Swinkels DW, Galesloot TE, Grarup N, Jørgensen T, Vestergaard H, Hansen T, Lauritzen T, Linneberg A, Friedrich N, Krarup NT, Fenger M, Abildgaard U, Hansen PR, Galløe AM, Braund PS, Nelson CP, Hall AS, Williams MJ, van Rij AM, Jones GT, Patel RS, Levey AI, **Hayek S**, Shah SH, Reilly M, Eyjolfsson GI, Sigurdardottir O, Olafsson I, Kiemeny LA, Quyyumi AA, Rader DJ, Kraus WE, Samani NJ, Pedersen O, Thorgeirsson G, Masson G, Holm H, Gudbjartsson D, Sulem P, Thorsteinsdottir U, Stefansson K. Variant ASGR1 Associated with a Reduced Risk of Coronary Artery Disease. *N Engl J Med.* 2016;374(22):2131-41.

• Neuman RB, **Hayek SS**, Poole JC, Rahman A, Menon V, Kavtaradze N, Polhemus D, Veledar E, Lefer DJ, Quyyumi AA. Nitric Oxide Contributes to Vasomotor Tone in Hypertensive African Americans Treated With Nebivolol and Metoprolol. *J Clin Hypertens (Greenwich).* 2016;18(3):223-31.

• **Hayek SS**, Sever S, Ko YA, Trachtman H, Awad M, Wadhwani S, Altintas MM, Wei C, Hotton AL, French AL, Sperling LS, Lerakis S, Quyyumi AA, Reiser J. Soluble Urokinase Receptor and Chronic Kidney Disease. *N Engl J Med.* 2015;373(20):1916-25.

• Corrigan FE, Al Mheid I, Eapen DJ, **Hayek SS**, Sher S, Martin GS, Quyyumi AA. Low testosterone in men predicts impaired arterial elasticity and microvascular function. *Int J Cardiol.* 2015;194:94-9.

• Amat-Santos IJ, Messika-Zeitoun D, Eltchaninoff H, Kapadia S, Lerakis S, Cheema AN, Gutiérrez-Ibanes E, Munoz-Garcia AJ, Pan M, Webb JG, Herrmann HC, Kodali S, Nombela-Franco L, Tamburino C, Jilaihawi H, Masson JB, de Brito FS, Ferreira MC, Lima VC, Mangione JA, Iung B, Vahanian A, Durand E, Tuzcu EM, **Hayek SS**, Angulo-Llanos R, Gómez-Doblas JJ, Castillo JC, Dvir D, Leon MB, Garcia E, Cobiella J, Vilacosta I, Barbanti M, R Makkar R, Ribeiro HB, Urena M, Dumont E, Pibarot P, Lopez J, San Roman A, Rodés-Cabau J. Infective endocarditis after transcatheter aortic valve implantation: results from a large multicenter registry. *Circulation.* 2015;131(18):1566-74.

• Chrysohoou C, **Hayek SS**, Spiliadis N, Lerakis S. Echocardiographic and clinical factors related to paravalvular leak incidence in low-gradient severe aortic stenosis patients post-transcatheter aortic valve implantation. *Eur Heart J Cardiovasc Imaging.* 2015;16(5):558-63.

• Neuman R, **Hayek S**, Rahman A, Poole JC, Menon V, Sher S, Newman JL, Karatela S, Polhemus D, Lefer DJ, De Staercke C, Hooper C, Quyyumi AA, Roback JD. Effects of storage-aged red blood cell transfusions on endothelial function in hospitalized patients. *Transfusion.* 2015;55(4):782-90.

• **Hayek S**, Pibarot P, Harzand A, Cheng JW, Gay H, Chrysohoou C, Ribeiro H, Rodés-Cabau J, Babaliaros V, Lerakis S. Dobutamine stress echocardiography for risk stratification of patients with low-gradient severe aortic stenosis undergoing TAVR. *JACC Cardiovasc Imaging.* 2015;8(3):380-382.

• **Hayek SS**, Neuman R, Kavtaradze N, Sher S, Jones D, Li Q, Zhao L, Chen SC, Waller E, Quyyumi A. Tumor necrosis factor- α antagonism with etanercept improves endothelial progenitor cell counts in patients with psoriasis: etanercept, vascular function and endothelial progenitor cells in psoriasis. *Int J Cardiol.* 2015;182:387-9.

• **Hayek SS**, Poole JC, Neuman R, Morris AA, Khayata M, Kavtaradze N, Topel ML, Binongo JG, Li Q, Jones DP, Waller EK, Quyyumi AA. Differential effects of nebivolol and metoprolol on arterial stiffness, circulating progenitor cells, and oxidative stress. *J Am Soc Hypertens.* 2015;9(3):206-13.

• Ozkor MA, **Hayek SS**, Rahman AM, Murrow JR, Kavtaradze N, Lin J, Manatunga A, Quyyumi AA. Contribution of endothelium-derived hyperpolarizing factor to exercise-induced vasodilation in health and hypercholesterolemia. *Vasc Med.* 2015;20(1):14-22.

• Urena M, **Hayek S**, Cheema AN, Serra V, Amat-Santos IJ, Nombela-Franco L, Ribeiro HB, Allende R, Paradis JM, Dumont E, Thourani VH, Babaliaros V, Francisco Pascual J, Cortés C, Del Blanco BG, Philippon F, Lerakis S, Rodés-Cabau J. Arrhythmia burden in elderly patients with severe aortic stenosis as determined by continuous electrocardiographic recording: toward a better understanding of arrhythmic events after transcatheter aortic valve replacement. *Circulation.* 2015;131(5):469-77.

• Awwad J, Usta IM, Ghazeeri G, Yacoub N, Succar J, **Hayek S**, Saasouh W, Nassar AH. A randomised controlled double-blind clinical trial of 17-hydroxyprogesterone caproate for the prevention of preterm birth in twin gestation (PROGESTWIN): evidence for reduced neonatal morbidity. *BJOG.* 2015;122(1):71-9.

- **Hayek S**, Nieva R, Corrigan F, Zhou A, Mudaliar U, Mays D, Massoomi M, Ilksoy N. End-of-life care planning: improving documentation of advance directives in the outpatient clinic using electronic medical records. *J Palliat Med*. 2014;17(12):1348-52.
- Hartlage GR, Babaliaros VC, Thourani VH, **Hayek S**, Chrysohoou C, Ghasemzadeh N, Stillman AE, Clements SD, Oshinski JN, Lerakis S. The role of cardiovascular magnetic resonance in stratifying paravalvular leak severity after transcatheter aortic valve replacement: an observational outcome study. *J Cardiovasc Magn Reson*. 2014;16(1):93.
- Abd TT, **Hayek S**, Cheng JW, Samuels OB, Wittstein IS, Lerakis S. Incidence and clinical characteristics of takotsubo cardiomyopathy post-aneurysmal subarachnoid hemorrhage. *Int J Cardiol*. 2014;176(3):1362-4.
- Ozkor MA, Rahman AM, Murrow JR, Kavtaradze N, Lin J, Manatunga A, **Hayek S**, Quyyumi AA. Differences in vascular nitric oxide and endothelium-derived hyperpolarizing factor bioavailability in blacks and whites. *Arterioscler Thromb Vasc Biol*. 2014;34(6):1320-7.
- Rahman AM, Murrow JR, Ozkor MA, Kavtaradze N, Lin J, De Staercke C, Hooper WC, Manatunga A, **Hayek S**, Quyyumi AA. Endothelium-derived hyperpolarizing factor mediates bradykinin-stimulated tissue plasminogen activator release in humans. *J Vasc Res*. 2014;51(3):200-8.
- Kalogeropoulos AP, Siwamogsatham S, **Hayek S**, Li S, Deka A, Marti CN, Georgiopoulou VV, Butler J. Echocardiographic assessment of pulmonary artery systolic pressure and outcomes in ambulatory heart failure patients. *J Am Heart Assoc*. 2014;3(1):e000363.
- **Hayek SS**, Abdou MH, Demoss BD, Legaspi JM, Veledar E, Deka A, Krishnan SK, Wilmot KA, Patel AD, Kumar VR, Devireddy CM. Prevalence of resistant hypertension and eligibility for catheter-based renal denervation in hypertensive outpatients. *Am J Hypertens*. 2013;26(12):1452-8.
- Poole J, Mavromatis K, Binongo JN, Khan A, Li Q, Khayata M, Rocco E, Topel M, Zhang X, Brown C, Corriere MA, Murrow J, Sher S, Clement S, Ashraf K, Rashed A, Kabbany T, Neuman R, Morris A, Ali A, **Hayek S**, Oshinski J, Yoon YS, Waller EK, Quyyumi AA. Effect of progenitor cell mobilization with granulocyte-macrophage colony-stimulating factor in patients with peripheral artery disease: a randomized clinical trial. *JAMA*. 2013;310(24):2631-9.
- Komati H, Maharsy W, Beauregard J, **Hayek S**, Nemer M. ZFP260 is an inducer of cardiac hypertrophy and a nuclear mediator of endothelin-1 signaling. *J Biol Chem*. 2011;286(2):1508-16.
- Usta IM, **Hayek S**, Yahya F, Abu-Musa A, Nassar AH. Shoulder dystocia: what is the risk of recurrence?. *Acta Obstet Gynecol Scand*. 2008;87(10):992-7.

CONSORTIA PUBLICATIONS

- Green A, Rachoin JS, Schorr C, Dellinger P, Casey JD, Park I, Gupta S, Baron RM, Shaefi S, Hunter K, Leaf DE, STOP-COVID Investigators. Timing of invasive mechanical ventilation and death in critically ill adults with COVID-19: A multicenter cohort study. *PLoS One*. 2023;18(6):e0285748.
- Nowatzke J, Guedeney P, Palaskas N, Lehmann I, Ederhy S, Zhu H, Cautela J, Francis S, Courand PY, Deswal A, Ewer SM, Aras M, Arangalage D, Ghafourian K, Fenieux C, Finke D, Peretto G, Zaha V, Itzhaki Ben Zadok O, Tajiri K, Akhter N, Levenson J, Baldassarre L, Power J, Huang S, Collet JP, Moslehi J, Salem JE, International ICI-myocarditis registry contributors. Coronary artery disease and revascularization associated with immune checkpoint blocker myocarditis: Report from an international registry. *Eur J Cancer*. 2022;177:197-205.
- Sunderraj A, Cho C, Cai X, Gupta S, Mehta R, Isakova T, Leaf DE, Srivastava A, STOP-COVID Investigators. Modulation of the Association Between Age and Death by Risk Factor Burden in Critically Ill Patients With COVID-19. *Crit Care Explor*. 2022;4(9):e0755.
- Ricardo AC, Chen J, Toth-Manikowski SM, Meza N, Joo M, Gupta S, Lazarous DG, Leaf DE, Lash JP, STOP-COVID Investigators. Hispanic ethnicity and mortality among critically ill patients with COVID-19. *PLoS One*. 2022;17(5):e0268022.
- Keene AB, Admon AJ, Brenner SK, Gupta S, Lazarous D, Leaf DE, Gershengorn HB, STOP-COVID Investigators. Association of Surge Conditions with Mortality Among Critically Ill Patients with COVID-19. *J Intensive Care Med*. 2022;37(4):500-509.
- Hsu CM, Gupta S, Tighiouart H, Goyal N, Faugno AJ, Tariq A, Raichoudhury R, Sharma JH, Meyer L, Kshirsagar RK, Jose A, Leaf DE, Weiner DE, STOP-COVID Investigators. Kidney Recovery and Death in Critically Ill Patients With COVID-19-

Associated Acute Kidney Injury Treated With Dialysis: The STOP-COVID Cohort Study. *Am J Kidney Dis.* 2022;79(3):404-416.e1.

- Friedman AN, Guirguis J, Kapoor R, Gupta S, Leaf DE, Timsina LR, STOP-COVID Investigators. Obesity, inflammatory and thrombotic markers, and major clinical outcomes in critically ill patients with COVID-19 in the US. *Obesity (Silver Spring).* 2021;29(10):1719-1730.
- Jezmir JL, Bharadwaj M, Chaitoff A, Diephuis B, Crowley CP, Kishore SP, Goralnick E, Merriam LT, Milliken A, Rhee C, Sadovnikoff N, Shah SB, Gupta S, Leaf DE, Feldman WB, Kim EY, STOP-COVID Investigators. Performance of crisis standards of care guidelines in a cohort of critically ill COVID-19 patients in the United States. *Cell Rep Med.* 2021;2(9):100376.
- Vasquez CR, Gupta S, Miano TA, Roche M, Hsu J, Yang W, Holena DN, Reilly JP, Schrauben SJ, Leaf DE, Shashaty MGS, STOP-COVID Investigators. Identification of Distinct Clinical Subphenotypes in Critically Ill Patients With COVID-19. *Chest.* 2021;160(3):929-943.
- Churpek MM, Gupta S, Spicer AB, Parker WF, Fahrenbach J, Brenner SK, Leaf DE, STOP-COVID Investigators. Hospital-Level Variation in Death for Critically Ill Patients with COVID-19. *Am J Respir Crit Care Med.* 2021;204(403-411):403-11.
- Flythe JE, Assimon MM, Tugman MJ, Chang EH, Gupta S, Shah J, Sosa MA, Renaghan AD, Melamed ML, Wilson FP, Neyra JA, Rashidi A, Boyle SM, Anand S, Christov M, Thomas LF, Edmonston D, Leaf DE, STOP-COVID Investigators. Characteristics and Outcomes of Individuals With Pre-existing Kidney Disease and COVID-19 Admitted to Intensive Care Units in the United States. *Am J Kidney Dis.* 2021;77(2):190-203.e1.

EDITORIALS, STATEMENTS AND GUIDELINES

- **Hayek SS**, Riwes M. Atrial Fibrillation After Stem Cell Transplantation: Sentinel of Systemic Vulnerability. *JACC CardioOncol.* 2026;8(1):28-30.
- Ismail A, Shadid HR, **Hayek SS**. The Reply. *Am J Med.* 2025;138(5):e94.
- Chalkias A, **Hayek SS**, International Study of Inflammation in COVID-19 (ISIC) Investigator Group. The authors reply. *Crit Care Med.* 2024;52(12):e636-e637.
- Goonewardena SN, Chen Q, Tate AM, Grushko OG, Damodaran Puthiya Veetil D, Blakely PK, **Hayek SS**, Pinsky DJ, Rosenson RS. Response by Goonewardena et al to Letter Regarding Article, “Monocyte-Mediated Thrombosis Linked to Circulating Tissue Factor and Immune Paralysis in COVID-19”. *Arterioscler Thromb Vasc Biol.* 2024;44(9):e240-e241.
- **Hayek SS**, Zaha VG, Bogle C, Deswal A, Langston A, Rotz S, Vasbinder A, Yang E, Okwuosa T, American Heart Association Cardio-Oncology Committee of the Council on Clinical Cardiology and Council on Genomic and Precision Medicine; and the Council on Cardiovascular and Stroke Nursing. Cardiovascular Management of Patients Undergoing Hematopoietic Stem Cell Transplantation: From Pretransplantation to Survivorship: A Scientific Statement From the American Heart Association. *Circulation.* 2024;149(16):e1113-e1127.
- Fenioux C, Abbar B, Boussouar S, Bretagne M, Power JR, Moslehi JJ, Gougis P, Amelin D, Dechartres A, Lehmann LH, Courand PY, Cautela J, Alexandre J, Procureur A, Rozes A, Leonard-Louis S, Qin J, International ICI-Myocarditis Registry, Cheynier R, Charmeteau-De Muylder B, Redheuil A, Tubach F, Cadranel J, Milon A, Ederhy S, Similowski T, Johnson DB, Pizzo I, Catalan T, Benveniste O, **Hayek SS**, Allenbach Y, Rosenzweig M, Dolladille C, Salem JE. Publisher Correction: Thymus alterations and susceptibility to immune checkpoint inhibitor myocarditis. *Nat Med.* 2024;30(3):910.
- Yeow RY, O’Leary MP, Reddy AR, Kamdar NS, **Hayek SS**, de Lemos JA, Sutton NR. Survival Characteristics of Older Patients Hospitalized With COVID-19: Insights From the American Heart Association COVID-19 Cardiovascular Disease Registry. *J Am Med Dir Assoc.* 2024;25(2):348-350.
- Fenioux C, Abbar B, Boussouar S, Bretagne M, Power JR, Moslehi JJ, Gougis P, Amelin D, Dechartres A, Lehmann LH, Courand PY, Cautela J, Alexandre J, Procureur A, Rozes A, Leonard-Louis S, Qin J, International ICI-Myocarditis Registry, Cheynier R, Charmeteau-De Muylder B, Redheuil A, Tubach F, Cadranel J, Milon A, Ederhy S, Similowski T, Johnson DB, Pizzo I, Catalan T, Benveniste O, **Hayek SS**, Allenbach Y, Rosenzweig M, Dolladille C, Salem JE. Author Correction: Thymus alterations and susceptibility to immune checkpoint inhibitor myocarditis. *Nat Med.* 2023;29(12):3268.
- Heidenreich PA, Bozkurt B, Aguilar D, Allen LA, Byun JJ, Colvin MM, Deswal A, Drazner MH, Dunlay SM, Evers LR, Fang JC, Fedson SE, Fonarow GC, **Hayek SS**, Hernandez AF, Khazanie P, Kittleson MM, Lee CS, Link MS, Milano CA, Nwacheta

LC, Sandhu AT, Stevenson LW, Vardeny O, Vest AR, Yancy CW, ACC/AHA Joint Committee Members. 2022 AHA/ACC/HFSA Guideline for the Management of Heart Failure: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines. *Circulation*. 2022;145(18):e895-e1032.

- Zaha VG, **Hayek SS**, Alexander KM, Beckie TM, Hundley WG, Kondapalli L, Ky B, Leger KJ, Meijers WC, Moslehi JJ, Shah SH. Future Perspectives of Cardiovascular Biomarker Utilization in Cancer Survivors: A Scientific Statement From the American Heart Association. *Circulation*. 2021;144(25):e551-e563.

- Leaf DE, **Hayek SS**. Questioning the Futility of Cardiopulmonary Resuscitation in Patients With Severe Coronavirus Disease 2019. *Crit Care Med*. 2021;49(8):e795-e796.

- Ryan TD, **Hayek SS**. New perspectives in cardio-oncology. *J Thromb Thrombolysis*. 2021;51(4):835-836.

- Tuzovic M, Brown SA, Yang EH, West BH, Bassi NS, Park S, Guha A, Ghosh AK, Ganatra S, **Hayek SS**, Moslehi J, Jahangir E. Implementation of Cardio-Oncology Training for Cardiology Fellows. *JACC CardioOncol*. 2020;2(5):795-799.

- **Hayek SS**, Leaf DE, Reiser J. Soluble Urokinase Receptor and Acute Kidney Injury. Reply. *N Engl J Med*. 2020;382(22):2167-2168.

- **Hayek SS**. How to Say Goodbye: Simple Lessons for the Cardiovascular Physician When Faced With Patient Death. *J Am Coll Cardiol*. 2019;74(1):154-156.

- Ganatra S, **Hayek SS**. Cardio-Oncology for GenNext: A Missing Piece of the Training Puzzle. *J Am Coll Cardiol*. 2018;71(25):2977-2981.

- Bhavnani SP, Parakh K, Atreja A, Druz R, Graham GN, **Hayek SS**, Krumholz HM, Maddox TM, Majmudar MD, Rumsfeld JS, Shah BR. 2017 Roadmap for Innovation-ACC Health Policy Statement on Healthcare Transformation in the Era of Digital Health, Big Data, and Precision Health: A Report of the American College of Cardiology Task Force on Health Policy Statements and Systems of Care. *J Am Coll Cardiol*. 2017;70(21):2696-2718.

- Xie JX, **Hayek SS**. Is it Time to Find a Role for Uric Acid Levels in the Prevention and Management of Hypertension. *Am J Hypertens*. 2017;30(1):16-18.

- **Hayek SS**, Quyyumi AA, Reiser J. Soluble Urokinase Receptor and Chronic Kidney Disease. *N Engl J Med*. 2016;374(9):891.

- Amat-Santos IJ, Messika-Zeitoun D, Eltchaninoff H, Kapadia S, Lerakis S, Cheema AN, Gutiérrez-Ibanes E, Munoz A, Pan M, Webb JG, Herrmann H, Kodali S, Nombela-Franco L, Tamburino C, Jilaihawi H, Masson JB, Sandoli de Brito F, Cristina Ferreira M, Lima VC, Mangione JA, Iung B, Vahanian A, Durand E, Tuzcu M, **Hayek SS**, Angulo-Llanos R, Gómez-Doblas JJ, Castillo JC, Dvir D, Leon MB, Garcia E, Cobiella J, Barbanti M, Makkar R, Barbosa Ribeiro H, Urena M, Dumont E, Pibarot P, Lopez J, San Roman A, Rodés-Cabau J. Response to Letters Regarding Article, “Infective Endocarditis After Transcatheter Aortic Valve Implantation: Results From a Large Multicenter Registry”. *Circulation*. 2015;132(23):e372-4.

- **Hayek SS**, Neuman R, Ashraf K, Sher S, Newman JL, Karatela S, Roback JD, Quyyumi AA. Effect of storage-aged red blood cell transfusions on endothelial function in healthy subjects. *Transfusion*. 2015;55(11):2768-70.

- Al Mheid I, **Hayek S**, Quyyumi AA. Provoking Coronary Vasospasm for Diagnosis of Variant Angina: Outdated Trick of the Trade or a Resurgent Diagnostic Modality?. *JACC Cardiovasc Interv*. 2015;8(7):924-6.

- Tribble R, Edgerton N, **Hayek S**, Winkel D, Anderson AM. Antiretroviral therapy-associated coccidioid meningitis. *Emerg Infect Dis*. 2013;19(1):163-5.

REVIEWS AND BOOK CHAPTERS

- Kochkarian T, Ismail A, Chaabo O, Motiwala A, **Hayek SS**. Personalized Antithrombotic Therapy After Percutaneous Coronary Intervention: A Systematic Review of Risk-Stratified Approaches. *Catheter Cardiovasc Interv*. 2026.

- Porterfield LR, Nadeem S, Swanson D, **Hayek SS**, Vaughan EM. Combination cardiometabolic therapy in type 2 diabetes: optimizing SGLT2 inhibitor and GLP-1 receptor agonist use. *Curr Atheroscler Rep*. 2026;28(1).

- **Hayek SS**, Dryer SE. uPAR/suPAR Signaling and Organ Crosstalk in Cardiovascular-Kidney-Metabolic Syndrome. *Circ Res*. 2026;139(1):e328563.

- Ochs MA, Shabanowitz N, Nachar VR, Ahmed I, **Hayek SS**, Crawford TC, Lewis S. Practical considerations in the management of patients with atrial fibrillation/flutter and hematologic malignancies. *J Oncol Pharm Pract.* 2026;10781552261445449.
- Reiser J, **Hayek SS**, Sever S. The role of suPAR and related proteins in kidney, heart diseases, and diabetes. *J Clin Invest.* 2026;136(1).
- Ismail A, **Hayek SS**. Role of Soluble Urokinase-Type Plasminogen Activator Receptor in Cardiovascular Disease. *Curr Cardiol Rep.* 2023;25(12):1797-1810.
- Vasbinder A, Ismail A, Salem JE, **Hayek SS**. Role of Biomarkers in the Management of Immune-Checkpoint Inhibitor-Related Myocarditis. *Curr Cardiol Rep.* 2023;25(9):959-967.
- Vasbinder et al. Cardiovascular Considerations in Patients Undergoing Hematopoietic Stem Cell Transplantation. Springer (Soubani ed.). 2023.
- Dong et al. The Management of Patients with Heart Failure and Diabetes. *Heart Failure (CRC Press).* 2022.
- Padalia et al. Chronic Kidney Disease Is a Risk Enhancer for Cardiovascular Diseases. Springer (Shapiro ed.). 2022.
- Vasbinder A, **Hayek SS**. Biomarkers for monitoring and prevention in cancer/heart disease: Traditional and innovative perspectives. *Am Heart J Plus.* 2022;17:100161.
- Fecher LA, Bishu S, Fontana RJ, **Hayek SS**, Schneider BJ. The Role of Tissue Biopsy in the Management of Immune Checkpoint Inhibitor Toxicity. *J Natl Compr Canc Netw.* 2022;20(4):417-425.
- Lehmann LH, Cautela J, Palaskas N, Baik AH, Meijers WC, Allenbach Y, Alexandre J, Rassaf T, Müller OJ, Aras M, Asnani AH, Deswal A, Laufer-Perl M, Thuny F, Kerneis M, **Hayek SS**, Ederhy S, Salem JE, Moslehi JJ. Clinical Strategy for the Diagnosis and Treatment of Immune Checkpoint Inhibitor-Associated Myocarditis: A Narrative Review. *JAMA Cardiol.* 2021;6(11):1329-1337.
- Lim ZJ, Ponnappa Reddy M, Curtis JR, Afroz A, Billah B, Sheth V, **Hayek SS**, Leaf DE, Miles JA, Shah P, Yuriditsky E, Jones D, Shekar K, Subramaniam A. A Systematic Review of the Incidence and Outcomes of In-Hospital Cardiac Arrests in Patients With Coronavirus Disease 2019. *Crit Care Med.* 2021;49(6):901-911.
- Rotz SJ, Ryan TD, **Hayek SS**. Cardiovascular disease and its management in children and adults undergoing hematopoietic stem cell transplantation. *J Thromb Thrombolysis.* 2021;51(4):854-869.
- Bang V, Ganatra S, Shah SP, Dani SS, Neilan TG, Thavendiranathan P, Resnic FS, Piemonte TC, Barac A, Patel R, Sharma A, Parikh R, Chaudhry GM, Vesely M, **Hayek SS**, Leja M, Venesy D, Patten R, Lenihan D, Nohria A, Cooper LT. Management of Patients With Giant Cell Myocarditis: JACC Review Topic of the Week. *J Am Coll Cardiol.* 2021;77(8):1122-1134.
- Feldman EL, Savelieff MG, **Hayek SS**, Pennathur S, Kretzler M, Pop-Busui R. COVID-19 and Diabetes: A Collision and Collusion of Two Diseases. *Diabetes.* 2020;69(12):2549-2565.
- Ganatra S, Dani SS, Shah S, Asnani A, Neilan TG, Lenihan D, Ky B, Barac A, **Hayek SS**, Leja M, Herrmann J, Thavendiranathan P, Fradley M, Bang V, Shreyder K, Parikh R, Patel R, Singh A, Brar S, Guha A, Gupta D, Mascari P, Patten RD, Venesy DM, Nohria A, Resnic FS. Management of Cardiovascular Disease During Coronavirus Disease (COVID-19) Pandemic. *Trends Cardiovasc Med.* 2020;30(6):315-325.
- Feroze RA, Leya J, Herron T, **Hayek SS**. Clinical and Research Tools for the Study of Cardiovascular Effects of Cancer Therapy. *J Cardiovasc Transl Res.* 2020;13(3):417-430.
- Ganatra S, Carver JR, **Hayek SS**, Ky B, Leja MJ, Lenihan DJ, Lenneman C, Mousavi N, Park JH, Perales MA, Ryan TD, Scherrer-Crosbie M, Steingart RM, Yang EH, Zaha V, Barac A, Liu JE. Chimeric Antigen Receptor T-Cell Therapy for Cancer and Heart: JACC Council Perspectives. *J Am Coll Cardiol.* 2019;74(25):3153-3163.
- Hoeger CW, **Hayek SS**. Role of Cardiovascular Biomarkers in the Risk Stratification, Monitoring, and Management of Patients with Cancer. *Cardiol Clin.* 2019;37(4):505-523.
- Perry D, **Hayek SS**. Carcinoid Heart Disease: A Guide for Clinicians. *Cardiol Clin.* 2019;37(4):497-503.

- **Hayek SS**, Ganatra S, Lenneman C, Scherrer-Crosbie M, Leja M, Lenihan DJ, Yang E, Ryan TD, Liu J, Carver J, Mousavi N, O'Quinn R, Arnold A, Banchs J, Barac A, Ky B. Preparing the Cardiovascular Workforce to Care for Oncology Patients: JACC Review Topic of the Week. *J Am Coll Cardiol*. 2019;73(17):2226-2235.
- Ganatra S, Sharma A, Shah S, Chaudhry GM, Martin DT, Neilan TG, Mahmood SS, Barac A, Groarke JD, **Hayek SS**, Dani S, Venesy D, Patten R, Nohria A. Ibrutinib-Associated Atrial Fibrillation. *JACC Clin Electrophysiol*. 2018;4(12):1491-1500.
- Varghese T, **Hayek SS**, Shekiladze N, Schultz WM, Wenger NK. Psychosocial Risk Factors Related to Ischemic Heart Disease in Women. *Curr Pharm Des*. 2016;22(25):3853-70.
- **Hayek S**, Sims DB, Markham DW, Butler J, Kalogeropoulos AP. Assessment of right ventricular function in left ventricular assist device candidates. *Circ Cardiovasc Imaging*. 2014;7(2):379-89.
- Hayek et al. Multiparametric assessment of post-transcatheter aortic valve replacement paravalvular regurgitation. *J Clin Exp Cardiol*. 2014.
- Lerakis S, **Hayek SS**, Douglas PS. Paravalvular aortic leak after transcatheter aortic valve replacement: current knowledge. *Circulation*. 2013;127(3):397-407.
- **Hayek S**, Nemer M. Cardiac natriuretic peptides: from basic discovery to clinical practice. *Cardiovasc Ther*. 2011;29(6):362-76.

CASE REPORTS

- Ganatra S, Nohria A, Shah S, Groarke JD, Sharma A, Venesy D, Patten R, Gunturu K, Zarwan C, Neilan TG, Barac A, **Hayek SS**, Dani S, Solanki S, Mahmood SS, Lipshultz SE. Upfront dexrazoxane for the reduction of anthracycline-induced cardiotoxicity in adults with preexisting cardiomyopathy and cancer: a consecutive case series. *Cardiooncology*. 2019;5:1.
- Lerakis S, **Hayek SS**, Thourani V, Babaliaros V. Transcatheter valve-in-valve implantation for degenerated mitral valve bioprosthesis under 3D echocardiographic guidance. *Expert Rev Cardiovasc Ther*. 2014;12(9):1035-6.
- **Hayek SS**, Babaliaros V, Thourani V, Block P, Lerakis S. Transcatheter valve-in-valve implantation for a degenerated mitral valve bioprosthesis under echocardiographic guidance. *Hellenic J Cardiol*. 2014;55(4):338-41.
- Lerakis S, **Hayek S**, Arepalli CD, Thourani V, Babaliaros V. Cardiac magnetic resonance for paravalvular leaks in post-transcatheter aortic valve replacement. *Circulation*. 2014;129(14):e430-1.
- **Hayek S**, Kung R, Barb I, Master V, Al S, Clements S. Digging deep: high output heart failure in renal cell carcinoma. *Am J Med*. 2014;127(1):22-4.
- Abdou M, **Hayek S**, Williams BR. Atrial myxoma in a patient with hypertrophic cardiomyopathy. *Tex Heart Inst J*. 2013;40(4):462-4.
- **Hayek SS**, Abd TT, Cribbs SK, Anderson AM, Melendez A, Kobayashi M, Polito C, Wayne Wang YF. Rare *Elizabethkingia meningosepticum* meningitis case in an immunocompetent adult. *Emerg Microbes Infect*. 2013;2(4):e17.