Curriculum Vitae

DAVID M. VOCK PH.D.

(612) 625-1266
vock@umn.edu

Education

PhD, North Carolina State University, Raleigh, North Carolina, United States. Statistics — 2012
Advisors: Marie Davidian, Anastasios A Tsiatis

M.Stat., North Carolina State University, Raleigh, North Carolina, United States. Statistics — 2009

BA, *Summa cum laude*, St. Olaf College, Northfield, Minnesota, United States. Mathematics and Chemistry — 2007

Academic Appointments

University of Minnesota
Associate Professor (with tenure) — 2019 - Present

University of Minnesota
Assistant Professor — 2012 - 2019

North Carolina State University
Department of Statistics: Research Assistant — 2011 - 2012

North Carolina State University
Department of Statistics: Teaching Assistant — 2010

North Carolina State University
Department of Statistics: Research Assistant — 2008 - 2010

Gilead Sciences
Graduate Industrial Trainee — 2008

Other Professional Positions

Duke Clinical Research Institute
Statistics Operations: Intern — 2008 - 2012

Current Membership in Professional Organizations

American Statistical Association — 2006 - Present

International Biometric Society (Eastern North American Region) — 2010 - Present

American Transplant Society — 2023 - Present

HONORS AND RECOGNITION

University of Minnesota

McKnight Presidential Fellow, University of Minnesota — 2019
(given to top ~10% of faculty tenured each year)

Leonard Schuman Award for Excellence in Teaching, School of Public Health, University of Minnesota 2019

Elected to Delta Omega National Public Health Honor Society 2018

External Sources

Elected to Sigma Xi National Honor Society 2024

Invited participant, NSF INNOVATIONS Lab, Statistical and Applied Mathematical Sciences Institute 2015

Thomas R. Ten Have Award, Atlantic Causal Inference Conference 2012

Best Student Poster Award for Applications in Biometry, ENAR spring meeting 2012

Best Student Paper Award, American Statistical Association Biopharmaceutical Section 2011

Gertrude M. Cox Outstanding Ph.D. Candidate, Top student on written preliminary exam, Department of Statistics, North Carolina State University 2010

Gertrude M. Cox Outstanding Ph.D. Qualifier, Top student on qualifying exam, Department of Statistics, North Carolina State University 2009

Elected to Mu Sigma Rho Statistics Honor Society 2009

Elected to Phi Kappa Phi National Honor Society 2008

Vertical Integration of Research and Education Fellowship Department of Statistics, North Carolina State University 2007

Provost Fellowship, North Carolina State University 2007

Student Research Award, North Central Council of Latin Americanists 2007

Undergraduate Term Paper Contest First Prize, Minnesota Economic Association 2007

Graduated *Summa Cum Laude* with Distinction in Statistics, St. Olaf College 2007

Elected to Phi Lambda Upsilon Chemistry Honor Society 2007

Henry H. & Anna Tosdal Scholarship, Given to top two ranking students in senior class, St. Olaf College 2007

Elected to Phi Beta Kappa National Honor Society 2006

David Bly Scholarship, Given to top two ranking students in junior class, St. Olaf College 2006

Eli Lilly and Company Undergraduate Research Fellowship 2006

St. Olaf College Dean's List (all semesters) 2003 – 2007

Regents Scholarship, Highest merit scholarship awarded, St. Olaf College	2003 – 2007
Robert C. Byrd Scholarship	2003 – 2007
National Merit Commended	2002

RESEARCH, SCHOLARSHIP, AND CREATIVE WORK

Grants, Contract, Awards

Currently Funded:

External Sources

1. **Award: Combat Wound Infection Evidence Based Medicine (CWI-EBM)**
   Role: Co-Investigator
   Principal Investigator: Butler, Mary E. (University of Minnesota)
   Sponsoring Organization: The Henry M. Jackson Foundation
   Sponsoring Organization Reference ID: PO# 1067120 -FMP# 6171 - HFJ Award#: 673
   Award Dates: October 1, 2023 - September 30, 2027
   Funded Amount for Entire Grant Period or Proposed Grant Period: $943,995
   Percent Effort: 10%
   Purpose: Aim 1: Reassess antibiotic prophylactic strategies for the prevention of battlefield-related deep soft-tissue infections, with/without bone involvement
   Aim 2: Examine empiric and directed antimicrobial management for the treatment of deep soft-tissue infections, with/without bone involvement with regard to both bacterial and fungal infections
   Aim 3: Conduct a systematic review of literature on the prevention and management of deep soft-tissue infections, with/without bone involvement

2. **Award: Evaluation of the SCALED (SCaling AcceptabLE cDs) Approach for the Implementation of Interoperable CDS for Venous Thromboembolism Prevention**
   Role: Co-Investigator
   Principal Investigator: Tignanelli, Christopher J. (University of Minnesota)
   Sponsoring Organization: Agency for Healthcare Research and Quality (AHRQ)
   Sponsoring Organization Reference ID: 1R18HS028583-01A1
   Award Dates: August 5, 2022 - July 31, 2025
   Funded Amount for Entire Grant Period or Proposed Grant Period: $2,994,478
   Percent Effort: 0% Y2, 5% Y3
   Purpose: This project will scale (via a stepped wedge randomized implementation trial) and rigorously evaluate an interoperable clinical decision support system (CDS) across our collaborative CDS community for venous thromboembolism prevention. Via mixed-methods, we will study implementation guided by the EPIS implementation framework throughout scaling. Finally, we will pilot an approach for Living Guideline's development and use that to update and sustain evidenced-based decision logic within a centrally-housed interoperable CDS knowledge repository.

3. **Award: A Multicenter, Adaptive, Randomized, Controlled Trial Platform to Evaluate Safety and Efficacy of Strategies and Treatments for Hospitalized Patients with Respiratory and Viral Diseases**
   Role: Biostatistician

Principal Investigator: Reilly, Cavan (University of Minnesota)
Sponsoring Organization: Leidos/NIH
Award Dates: May 1, 2022 - May 30, 2025
Funded Amount for Entire Grant Period or Proposed Grant Period: $110,832,885.26
Percent Effort: 27% Y2, 25% Y3
Purpose: Aims to provide an agile research platform able to investigate strategies and treatments that may improve the health of patients hospitalized with a respiratory infection. The INSIGHT Statistical and Data Management Center (SDMC) is located at the University of Minnesota. The network consists of seven International Coordinating Centers, located in Copenhagen, London, Sydney, Washington DC, Nashville, New York and Minneapolis and the U.S. Department of Veterans Affairs Network.

4. **Award: Outcomes in living kidney donors over 50 years compared to a healthy matched contemporaneous nondonor**
cohort from the same geographical region
Role: Co-Investigator
Principal Investigator: Matas, Arthur J. (University of Minnesota)
Sponsoring Organization: NIH National Institute of Diabetes, Digestive, and Kidney Diseases
Sponsoring Organization Reference ID: 5R01DK125431-02
Award Dates: July 1, 2020 - April 30, 2025
Funded Amount for Entire Grant Period or Proposed Grant Period: $3,312,390
Percent Effort: 8% Y4 - 5
Purpose: Recent studies have suggested that living donors (LDs) have increased risks of kidney failure and death; but follow-up has been limited and there are serious problems with the scientific design of these studies, particularly with the characteristics of people compared to the LDs. We will compare LDs with true long-term follow-up to an optimally matched control group (same time period, same geographic area, healthy on date of donation, no abnormal kidney function); and in addition to kidney failure and death, study intermediate events (e.g., kidney function, cardiovascular disease), pregnancy and outcomes after new-onset disease (e.g., hypertension).

5. **Award: NorthStar Node of the Clinical Trials Network**
Role: **Principal Investigator**
Sponsoring Organization: Hennepin Healthcare Research Institute
Sponsoring Organization Reference ID: 15249-03-UMNVock
Award Dates: June 1, 2020 - February 28, 2025
Funded Amount for Entire Grant Period or Proposed Grant Period: $6,523
Percent Effort: 1% Y4, 2% Y5
Purpose: These funds will assist the Northstar Node in incorporating biostatistics work of Dr. Vock from the Regents of the University of Minnesota. Principal Investigator Dr. Gavin Bart and Node Coordinator Nate Tessum will provide guidance, oversight, and act as liaison between the Dr. Vock and the work of the NorthStar Node.

6. **Award: PRescribing INterventions for Chronic pain via the Electronic medical record (PRINCE)**
Role: Co-Investigator
Principal Investigator: Golberstein, Ezra (University of Minnesota)
Sponsoring Organization: NIH National Institute on Drug Abuse (NIDA)
Sponsoring Organization Reference ID: 5R33DA046084-05
Award Dates: September 1, 2019 - August 31, 2024

Funded Amount for Entire Grant Period or Proposed Grant Period: $1,748,050
Percent Effort: 4% Y3
Purpose: This project will develop a novel, Electronic Health Record-based intervention that uses behavioral economics principles to encourage primary care providers to treat chronic pain in ways that are consistent with CDC guidelines. A clinic-randomized trial will test the effectiveness of the intervention on opioid prescribing patterns. This research will inform public health policy and clinical practice by creating an evidence base for provider-targeted interventions that encourage appropriate opioid prescribing for chronic pain.

7. **Award: Innovative Statistical Methods for Evaluating the Impact of Tobacco Product Standards**
Role: **Multi Principle Investigator**
Sponsoring Organization: National Institutes of Health (NIH)
Sponsoring Organization Reference ID: 5R01DA046320-03
Award Dates: August 1, 2018 - July 31, 2024
Funded Amount for Entire Grant Period or Proposed Grant Period: $1,176,386
Percent Effort: 6% Y3
Purpose: The Food and Drug Administration (FDA) Center for Tobacco Products has identified impact analyses of potential FDA regulatory action as an area of scientific interest. Tobacco regulatory scientists have completed, initiated, or proposed a number of randomized controlled trials (RCTs) to evaluate the impact of potential product standards, but existing statistical methods to analyze data from RCTs can be limited by non-adherence to randomized treatment assignment, limited power for evaluating vulnerable subpopulations, and lack of external validity. The goal of this project is to address these limitations by developing novel statistical methodology for estimating causal effects from multiple RCTs, for estimating causal effects in vulnerable populations, and for calibrating estimates of causal effects to a relevant target population.

8. **Award: SMART Use of Medication for the Treatment of Adolescent Severe Obesity**
Role: Co-Investigator
Principal Investigator: Fox, Claudia K. (University of Minnesota)
Sponsoring Organization: NIH National Institute of Diabetes, Digestive, and Kidney
Sponsoring Organization Reference ID: 1R01DK119456-01A1
Award Dates: September 15, 2019 - June 30, 2024
Funded Amount for Entire Grant Period or Proposed Grant Period: $3,189,397
Percent Effort: 15%
Purpose: The goal of this clinical trial is to garner data that will inform the development of an adaptive medical intervention for the treatment of severe adolescent obesity that includes empirically-derived decision rules that address when adjunct pharmacotherapy should be initiated, and if starting pharmacotherapy, what is the best sequence or course of therapy.

9. **Award: An Adaptive Algorithm-Based Approach to Treatment for Adolescent Depression**
Role: Co-Investigator
Principal Investigator: Gunlicks-Stoessel, Meredith L. (University of Minnesota)
Sponsoring Organization: NIH National Institute of Mental Health
Sponsoring Organization Reference ID: 5R01MH113748-05
Award Dates: August 1, 2017 - May 31, 2024
Funded Amount for Entire Grant Period or Proposed Grant Period: $2,931,616
Percent Effort: 4% Y5
Purpose: Theory-driven and evidence-based adaptive treatment strategies for adolescent

depression have the potential to significantly improve treatment outcomes, as well as increase the efficiency and cost effectiveness of treatment. The movement towards an algorithm-based approach to treatment has been identified as a public health priority and is a cornerstone of President Obama's Precision Medicine Initiative.

10. **Award: COVID-19 Outpatient Early Treatment (INSIGHT 012), Outpatient Treatment With Anti-Coronavirus Immunoglobulin (OTAC)**
    Role: Co-Investigator
    Principal Investigator: Reilly, Cavan (University of Minnesota)
    Sponsoring Organization: Leidos/NIH
    Award Dates: June 2020 - Present
    Funded Amount for Entire Grant Period or Proposed Grant Period: $20,889,332
    Percent Effort: 10%
    Purpose: Treatments are needed to prevent disease progression and morbidity and mortality from COVID-19. This trial will evaluate a passive immunotherapy strategy in hyperimmune intravenous immunoglobulin (hIVIG) among participants with early SARS-CoV-2 infection, given in addition to current standard of care (SOC) treatment(s) as available and specified by established national and international guidelines (e.g., the National Institutes of Health (NIH) COVID-19 Treatment Guidelines, or the World Health Organization (WHO) Therapeutics and COVID-19 Guidelines). A SOC treatment must be pre-specified for each participant prior to randomization.

Internal Sources

1. **Award: Biostatistical Support for Transplant Outcomes Research**
   Role: Principal Investigator
   Sponsoring Organization: Division of Transplant Surgery, Department of Surgery, University of Minnesota
   Award Dates: October 8, 2015 - Present
   Percent Effort: 20%
   Purpose: This contract provides statistical support for the Division of Transplant Surgery.

Previously Funded and Concluded:

1. **Award: University of Minnesota Clinical and Translational Science Institute (UMN CTSI)**
   Role: Co-Investigator
   Principal Investigator: Blazar, Bruce R. (University of Minnesota)
   Sponsoring Organization: NIH National Center for Advancing Translational Sciences
   Sponsoring Organization Reference ID: 5UL1TR002494-05 REVISED
   Award Dates: March 30, 2018 - November 17, 2023
   Funded Amount for Entire Grant Period or Proposed Grant Period: $5,414,525
   Percent Effort: 1%
   Purpose: Our mission is to create a nationally-recognized, shareable model of complex translational team science driven and enabled by integration and alignment of clinical and translational science (CTS) research with education, data access, community needs and industry efforts.

2. **Award: ACTIV-3 INSIGHT 014, Therapeutics for Inpatients with COVID-19**
   Role: Biostatistician
   Sponsoring Organization: Leidos/NIH
   Award Dates: June 1, 2020 - August 31, 2023
   Funded Amount for Entire Grant Period or Proposed Grant Period: $152,476,156

Percent Effort: 5%
Purpose: The International Network for Strategic Initiatives Global HIV Trials (INSIGHT), a NIAID-funded clinical trials network, has been selected by the Operation Warp Speed ACTIV nMAb Master Protocol Steering Committee, Foundation for the National Institutes of Health, to lead development of therapeutic clinical trials focused on neutralizing monoclonal antibodies (nMAbs) in hospitalized patients with COVID-19. INSIGHT's Statistical and Data Management Center (SDMC) is located at the University of Minnesota. The network consists for four international Coordinating Centers (ICCs), located in Copenhagen, London, Sydney, and Washington, and over 300 clinical sites aligned with these ICCs.

3. **Award: COVID-19 In-Patient Early Treatment (INSIGHT 013), Inpatient Treatment With Anti-Coronavirus Immunoglobulin (ITAC)**
Role: Co-Investigator
Principal Investigator: Reilly, Cavan (University of Minnesota)
Sponsoring Organization: Leidos/NIH
Award Dates: June 2020 - August 31, 2023
Funded Amount for Entire Grant Period or Proposed Grant Period: $20,889,332
Percent Effort: 10%
Purpose: Treatments are needed to prevent disease progression and morbidity and mortality from COVID-19. This trial will evaluate a passive immunotherapy strategy in hyperimmune intravenous immunoglobulin (hIVIG) among participants with early SARS-CoV-2 infection, given in addition to current standard of care (SOC) treatment(s) as available and specified by established national and international guidelines (e.g., the National Institutes of Health (NIH) COVID-19 Treatment Guidelines, or the World Health Organization (WHO) Therapeutics and COVID-19 Guidelines). A SOC treatment must be pre-specified for each participant prior to randomization.

3. **Award: Precision Radiomics for Dynamic Big Head & Neck Cancer Data**
Role: **Principal Investigator**
Sponsoring Organization: University of Illinois Chicago
Sponsoring Organization Reference ID: 16601-02
Award Dates: September 1, 2017 - August 31, 2021
Funded Amount for Entire Grant Period or Proposed Grant Period: $158,627
Percent Effort: 3%
Purpose: Dr. Vock will lead the proposed research at the University of Minnesota on methods to infer optimal treatment strategies when there are multiple outcomes for efficacy and toxicity. He will lead the methodological development, software implementation, analysis of motivational data sets, and writing the research articles from the proposed research.
Status of Support: Active

4. **Award: Participatory Trial of a Health Promoting School Approach to Positive Youth Development and Wellness Promotion**
Role: Co-Investigator
Principal Investigator: Allen, Michele L. (University of Minnesota)
Sponsoring Organization: National Institute on Minority Health (NIH)
Sponsoring Organization Reference ID: 5R01MD010586-05 Revised
Award Dates: April 8, 2016 - November 30, 2021
Funded Amount for Entire Grant Period or Proposed Grant Period: $2,415,216
Percent Effort: 2%
Purpose: The three major goals of this projects are 1) to assess the effects of a health

promoting schools multi-component intervention on improved school connectedness, school engagement, and developmental assets through a group randomized, participatory trial. 2) assess the effects of a health promoting schools multi-component intervention on student academic outcomes, emotional well-being, and tobacco and other substance use through a group randomized, participatory trial. 3) evaluate the association between quality CBPR implementation (partnership, operational, and contextual factors) with intervention implementation and study outcomes.

5. **Award: Personalized Smoking Cessation Tool Based on Patient Lung CT Image**
Role: Co-Investigator
Principal Investigator: Lando, Harry A. (University of Minnesota)
Sponsoring Organization: IMBIO, LLC
Sponsoring Organization Reference ID: Subaward # 21-03
Award Dates: September 21, 2016 - August 31, 2021
Funded Amount for Entire Grant Period or Proposed Grant Period: $380,953
Percent Effort: 4%
Purpose: Dr. Lando at the University of Minnesota will have major responsibility for scientific oversight of the Phase II research and will serve as the Principal Investigator on the University of Minnesota subcontract. For Specific Aim 3, the randomized controlled trial, he will be actively engaged in all phases including content of survey instruments, survey procedures, subject recruitment, and oversight of cessation counseling. He will also have major involvement in data interpretation and in writing of manuscripts and reports.

6. **Award: Adaptive Interventions for Smoking Cessation in Lung Cancer Screening Programs**
Role: Co-Investigator
Principal Investigator: Joseph, Anne M. (University of Minnesota)
Sponsoring Organization: NIH National Cancer Institute (NCI)
Sponsoring Organization Reference ID: 3R01CA196873-05S1
Award Dates: September 25, 2015 - August 31, 2021
Funded Amount for Entire Grant Period or Proposed Grant Period: $414,448
Percent Effort: 4%
Purpose: Chronic disease management models are needed to improve smoking cessation treatment results. Lung cancer screening with low dose CT scans is now recommended for millions of smokers. We propose to use a novel research tool, sequential, multiple assignment, randomized trials (SMARTs), to rigorously test different year-long sequences of tobacco treatment in patients participating in lung cancer screening, including plans for those who respond both incompletely and completely to first-line treatment.

7. **Award: SMART-ACT: Spatial Methodologic Approaches for Risk assessment and Therapeutic Adaptation in Cancer Treatment**
Role: **Principal Investigator**
Sponsoring Organization: University of Illinois
Sponsoring Organization Reference ID: 16376-01
Award Dates: March 3, 2017 - February 28, 2021
Funded Amount for Entire Grant Period or Proposed Grant Period: $55,937
Percent Effort: 3%
Purpose: Dr. Vock will be involved in all phases of the project and his statistical expertise will complement the computational expertise of the other team members. Dr. Vock will be involved in formulating the problem, methods development, conducting simulation studies, data analysis and manuscript preparation and will co-supervise a Graduate Research

Assistant.

8. **Award: Determination of Protein Requirements Using a Stable Isotope Multi-Step Feeding Protocol and Evaluation of an Innovative Ultrasound Device and other Bedside Technologies for Lean Tissue Assessment in Individuals with Head and Neck Cancer**
Role: Co-Investigator
Co-Principal Investigators: Kuchnia, Adam, J. (University of Minnesota), Teigen, Levi, M. (University of Minnesota)
Sponsoring Organization: American Society for Parenteral and Enteral Nutrition
Award Dates: January 1, 2016 - January 31, 2021
Funded Amount for Entire Grant Period or Proposed Grant Period: $28,221
Percent Effort: 1%
Purpose: To determine the protein intake required to prevent net protein loss (anabolic threshold) and to evaluate the relationship between protein intake and net protein synthesis (anabolic capacity) of individuals with head and neck cancer (HNC), before and after chemoradiation therapy (CRT), using a novel stable isotope amino tracer multi-step feeding protocol. To examine several clinically-accessible tools, including force-controlled ultrasound (US), bioimpedance spectroscopy (BIS), and nutrition-focused physical examination for lean tissue assessment at the bedside in individuals with HNC.

9. **Award: Efficacy and Mechanisms of Combined Aerobic Exercise and Cognitive Training in MCI (The ACT Trail)**
Role: Co-Investigator
Principal Investigator: Yu, Fang (University of Minnesota)
Sponsoring Organization: NIH National Institute on Aging (NIA)
Sponsoring Organization Reference ID: 5R01AG055469-04 Revised
Award Dates: September 15, 2017 - September 30, 2020
Funded Amount for Entire Grant Period or Proposed Grant Period: $599,311
Percent Effort: 1%
Purpose: The purpose of this single-blinded, factorial Phase II randomized controlled trial (RCT) is to test the efficacy and additive/synergistic effects of a 6-month combined cycling and speed of processing (SOP) training intervention on cognition and relevant mechanisms (aerobic fitness, AD signature cortical thickness, and functional connectivity in the default mode network [DMN]) in older adults with amnestic MCI (aMCI).

10. **Award: Aerobic Exercise in Alzheimer's Disease: Cognition and Hippocampal Volume Effects**
Role: Co-Investigator
Principal Investigator: Yu, Fang (University of Minnesota)
Sponsoring Organization: NIH National Institute on Aging (NIA)
Sponsoring Organization Reference ID: 5R01AG043392-05 REVISED
Award Dates: May 1, 2016 - September 30, 2020
Funded Amount for Entire Grant Period or Proposed Grant Period: $432,506
Percent Effort: 4%
Purpose: Two complementary frameworks guide our study: the cardiovascular fitness hypothesis that suggests increased aerobic fitness improves cognition; and the biological mechanistic theory which addresses the lack of specificity of the first framework by identifying the mechanisms of action of aerobic exercise.

11. **Award: Determination of Protein Requirements Using a Stable Isotope Multi-Step Feeding Protocol and Evaluation of an Innovative Ultrasound Device and other Bedside**

Technologies for Lean Tissue Assessment in Individuals with Head and Neck Cancer
Role: Co-Investigator
Principal Investigator: Earthman, Carrie P. (University of Minnesota)
Sponsoring Organization: Nutricia Research Foundation
Sponsoring Organization Reference ID: 2016-16
Award Dates: January 1, 2016 - August 31, 2020
Funded Amount for Entire Grant Period or Proposed Grant Period: $28,221
Percent Effort: 1%
Purpose: To determine the protein intake required to prevent net protein loss (anabolic threshold) and to evaluate the relationship between protein intake and net protein synthesis (anabolic capacity) of individuals with head and neck cancer (HNC), before and after chemoradiation therapy (CRT), using a novel stable isotope amino tracer multi-step feeding protocol. To examine several clinically-accessible tools, including force-controlled ultrasound (US), bioimpedance spectroscopy (BIS), and nutrition-focused physical examination for lean tissue assessment at the bedside in individuals with HNC.

12. **Award: Validation of a Room-Temperature Storage Technique for Plasma/Serum Biospecimens**
Role: Co-Investigator
Principal Investigator: Aksan, Alptekin (University of Minnesota)
Sponsoring Organization: NIH National Cancer Institute (NCI)
Sponsoring Organization Reference ID: 5R33CA204510-03
Award Dates: July 1, 2016 - June 30, 2020
Funded Amount for Entire Grant Period or Proposed Grant Period: $245,984
Percent Effort: 3%
Purpose: Specific Aim 1: Validate 4 selected proteinaceous biomarkers in serum samples using the novel isothermal vitrification matrix developed in the previous R21 grant. Specific Aim 2: Validate the stability of an array of 311 proteinaceous biomarkers in serum using a multi-analyte profiling platform, using the novel isothermal vitrification matrix. Specific Aim 3: Conduct independent validation of the technology developed here for potential adoption in a Mayo Clinic Biobank in Rochester, MN and the National Cancer Center Biobank in Tokyo, Japan for storage of serum samples. In Specific Aim 3, we plan to move the technology out of the research laboratory and field test it in two collaborating biobanks, the Biobank at the Japanese National Cancer Institute in Tokyo, and the Center for Individualized Medicine Biorepository at the Mayo Clinic in Rochester, MN. Specific Aim 4. Explore the effectiveness of the developed technology to stabilize and store rare and very valuable non-proteinaceous biomarkers including cell-free DNA and RNA, circulating nucleosomes, peptides, lipids, small molecule metabolites, and exosomes.

13. **Award: Precision E-Radiomics: Dynamic Radiotherapy Methodology for Big Head & Neck Cancer Data**
Role: **Principal Investigator**
Sponsoring Organization: National Cancer Institute
Award Dates: May 2017 - May 2020
Funded Amount for Entire Grant Period or Proposed Grant Period: $158,627
Percent Effort: 3%
Purpose: Dr. Vock will lead the proposed research at the University of Minnesota on methods to infer optimal treatment strategies when there are multiple outcomes for efficacy and toxicity. He will lead the methodological development, software implementation, analysis of motivational data sets, and writing the research articles from the proposed research.

14. **Award: Healthy Youth Development Prevention Research Center**
Role: Co-Investigator
Principal Investigator: Sieving, Renee E. (University of Minnesota)
Sponsoring Organization: Centers for Disease Control & Prevention
Sponsoring Organization Reference ID: 5U48DP005022-05-01
Award Dates: September 30, 2014 - September 30, 2019
Funded Amount for Entire Grant Period or Proposed Grant Period: $954,445
Percent Effort: 4%
Purpose: The major goals of this project are to design and produce (1) an evidence base for adolescent self-management, and (2) design, develop, implement and test an epilepsy self-management program for adolescents.

15. **Award: PRescribing INterventions for Chronic pain via the Electronic medical record (PRINCE)**
Role: Co-Investigator
Principal Investigator: Golberstein, Ezra (University of Minnesota)
Sponsoring Organization: NIH National Institute on Drug Abuse (NIDA)
Sponsoring Organization Reference ID: 5R21DA046084-02
Award Dates: September 1, 2017 - August 31, 2019
Funded Amount for Entire Grant Period or Proposed Grant Period: $614,674
Percent Effort: 3%
Purpose: This project will develop a novel, Electronic Health Record-based intervention that uses behavioral economics principles to encourage primary care providers to treat chronic pain in ways that are consistent with CDC guidelines. A clinic-randomized trial will test the effectiveness of the intervention on opioid prescribing patterns. This research will inform public health policy and clinical practice by creating an evidence base for provider-targeted interventions that encourage appropriate opioid prescribing for chronic pain.

16. **Award: Evaluation of Dallas IEP**
Role: Co-Investigator
Principal Investigator: Shippee, Nathan D. (University of Minnesota)
Sponsoring Organization: Parkland Center for Clinical Innovation
Award Dates: August 1, 2017 - May 31, 2019
Funded Amount for Entire Grant Period or Proposed Grant Period: $162,819
Percent Effort: 4%
Purpose: To assess the effect of IEP on client and geographic-aggregated outcomes and experiences using a longitudinal, comparative design and data from administrative, survey, and qualitative sources, and to assess providers/end users experience in implementing and using the IEP to identify mechanisms and potential feasibility issues.

17. **Award: Innovative Statistical Methods for Detecting and Accounting for Non-Compliance in Randomized Trials of Very Low Nicotine Content Cigarettes**
Role: Multi Principal Investigator
Principal Investigator: Koopmeiners, Joseph S. (University of Minnesota)
Sponsoring Organization: NIH National Institue on Drug Abuse (NIDA)
Sponsoring Organization Reference ID: 5R03DA041870-02 REVISED
Award Dates: April 1, 2016 - March 31, 2019
Funded Amount for Entire Grant Period or Proposed Grant Period: $75,000
Percent Effort: 1%
Purpose: In response to FDA's new authority to limit the nicotine content of cigarettes, the FDA and National Institutes of Health (NIH) have funded a number of randomized clinical

trials to evaluate the impact of Very Low Nicotine Content (VLNC) cigarettes on tobacco product use behavior. The generalizability of the comparison of smokers randomized to VLNC versus normal nicotine cigarettes (NNC) in these trials to a scenario in which nicotine content is limited by regulation is complicated by the presence of non-compliance to randomized treatment assignment. The goal of this project is to develop innovative statistical methods that will allow regulatory tobacco researchers to detect non-compliance using biomarkers of nicotine exposure and to develop a statistical framework for estimating the causal effects of VLNC cigarettes when non-compliance is measured imprecisely using a biomarker.

18. **Award: Vascular Biomarkers to Predict Response to Exercise in Alzheimer's Disease**
Role: Co-Investigator
Principal Investigator: Li, Danni (University of Minnesota)
Sponsoring Organization: Alzheimer's Association
Sponsoring Organization Reference ID: NIRG-15-362393
Award Dates: December 1, 2015 - November 30, 2018
Funded Amount for Entire Grant Period or Proposed Grant Period: $36,109
Percent Effort: 3%
Purpose: The goal of this project is to develop vascular biomarker-based prediction of exercise treatment responses in Alzheimer's disease.

19. **Award: Anti-Influenza Hyperimmune Intravenous Immunoglobulin Clinical Outcome Study**
Role: Biostatistician
Principal Investigator: Neaton, James (University of Minnesota)
Sponsoring Organization: Leidos/National Cancer Institute/National Institute of Allergy and Infectious Diseases
Award Dates: October 2013 - September 2018
Funded Amount for Entire Grant Period or Proposed Grant Period: $3,941,194
Percent Effort: 9%
Purpose: The purposed of this randomized, double-blind, placebo-controlled trial of intravenous hyperimmune immunoglobulin (IVIG) in individuals with influenza A or B to determine whether, when added to standard of care (SOC) treatment, administration of IVIG is superior to placebo in terms of reducing disease severity and duration.

20. **Award: Formative Research toward a Mobile Technology Facilitated Chronic Care Model: mGlide Infrastructure Development**
Role: Co-Investigator
Sponsoring Organization: Academic Health Center Faculty Research Development Grant
Award Dates: September 2016 - August 2018
Funded Amount for Entire Grant Period or Proposed Grant Period:
Percent Effort: 0%
Purpose: Provide support for software development and testing of a Mobile Technology Facilitated Chronic Care Model for blood pressure control in stroke survivors.

21. **Award: Biostatistical Support for Pediatric Infectious Disease Research and Mentorship of Students**
Role: **Principal Investigator**
Sponsoring Organization: Department of Pediatrics
Award Dates: December 2015 - September 2017
Percent Effort: 10%

Purpose: The goal of this internal contract was to provide support and mentorship for biostatistics students doing pediatric infectious disease research.

22. **Award: Models for Tobacco Products Evaluation**
Role: Co-Investigator
Sponsoring Organization: National Cancer Institute
Award Dates: September 2012 - September 2017
Funded Amount for Entire Grant Period or Proposed Grant Period: $2,563,205
Percent Effort: 10%
Purpose: The overall goal of this Program Project is to provide scientists and regulatory agencies scientifically-based guidelines with methods and measures for the evaluation of tobacco products. The proposed program includes four projects. The goal of Project 1 is to develop methods evaluating the relative abuse liability of tobacco products in animal model. The goal of Project 2 is to develop more sensitive and comprehensive abuse liability assessment methods for tobacco products by applying a behavioral economic approach. The goal of Project 3 is to test various aspects of consumer perceptions of new oral products. In Project 4, methods will be tested by a multi-center clinical trial which would lead to measures and methods for the evaluation of tobacco products.

23. **Award: QuBBD: Collaborative Research: SMART -- Spatial-nonspatial Multidimensional Adaptive Radiotherapy Treatment**
Role: **Principal Investigator**
Sponsoring Organization: The National Science Foundation
Sponsoring Organization Reference ID: 1557565
Award Dates: September 15, 2015 - August 31, 2016
Funded Amount for Entire Grant Period or Proposed Grant Period: $16,359
Percent Effort: 8.3%
Purpose: The purpose of this planning grant is develop cross-disciplinary quantitative methods for developing optimal treatment strategies for patients with head and neck cancer which will form the basis of a multi-year collaborative grant. Specifically, we extend q-learning, a type of reinforcement learning, to account for competing, multiple outcomes. We further extend the state of the art by taking into account both spatial data (such as medical images) and nonspatial data (such as demographics and toxicity) in the development of the treatment rules. To do so, we develop novel methods to extract informative, relevant and non-redundant features from these high-dimensional imaging data, while incorporating domain expert knowledge.

24. **Award: Overcoming Challenges Associated with Artificial Censoring in Structural Nested Failure Time Models**
Role: **Principal Investigator**
Sponsoring Organization: University of Pennsylvania
Sponsoring Organization Reference ID: 556054
Award Dates: August 1, 2014 - July 31, 2015
Funded Amount for Entire Grant Period or Proposed Grant Period: $34,787
Percent Effort: 15%
Purpose: Dr. Vock will lead the proposed research at the University of Minnesota on methods to overcome challenges associated with artifical censoring in structural nested failure time models. He will lead the methodological development, software implementation, analysis of motivational data sets, and writing the research articles from the proposed research.

25. **Award: Biostatistical Methods to Develop Personalized Treatment Strategies for**

Patients Awaiting Organ Transplant
Role: **Principal Investigator**
Sponsoring Organization: Office of the Vice President for Research Grant in Aid of Research, Artistry & Scholarship
Award Dates: July 2013 - January 2015
Funded Amount for Entire Grant Period or Proposed Grant Period: $34,146
Percent Effort: 0% (internal grant did not support faculty effort)
Purpose: The purpose of this grant is to support development of methods to personalize strategies for patients awaiting organ transplantation.

26. **Award: A Causal Inference-Based Software Tool for Determining the Effects of Treatment on the Risk of Cardiovascular Events Among Patients with Type 2 Diabetes**
Role: **Principal Investigator**
Sponsoring Organization: Clinical Translational Research Services (CTRS) Research Services Pilot Award
Award Dates: October 2013 - September 2014
Funded Amount for Entire Grant Period or Proposed Grant Period: $50,000
Percent Effort: 0% (internal grant did not support faculty effort)
Purpose: The purpose of this award is to develop data infrastructure to use causal inference tools to determining the effects of treatment on the risk of cardiovascular events among patients with type 2 diabetes.

27. **Award: Overcoming Challenges Associated with Artificial Censoring in Structural Nested Failure Time Models**
Role: **Principal Investigator**
Sponsoring Organization: University of Pennsylvania
Sponsoring Organization Reference ID: 556054
Award Dates: December 16, 2013 - July 31, 2014
Funded Amount for Entire Grant Period or Proposed Grant Period: $34,787
Percent Effort: 15%
Purpose: Dr. Vock will lead the proposed research at the University of Minnesota on methods to overcome challenges associated with artificial censoring in structural nested failure time models. He will lead the methodological development, software implementation, analysis of motivational data sets, and writing the research articles from the proposed research.

28. **Award: Overcoming Challenges Associated with Artificial Censoring in Structural Nested Failure Time Models**
Role: **Principal Investigator**
Sponsoring Organization: University of Pennsylvania
Sponsoring Organization Reference ID: 556054
Award Dates: April 1, 2013 - July 31, 2013
Funded Amount for Entire Grant Period or Proposed Grant Period: $34,787
Percent Effort: 75%
Purpose: Dr. Vock will lead the proposed research at the University of Minnesota on methods to overcome challenges associated with artifical censoring in structural nested failure time models. He will lead the methodological development, software implementation, analysis of motivational data sets, and writing the research articles from the proposed research.

Pending/Submitted:

1. **Proposal: Innovative Statistical Methods for Estimating the Impact of Tobacco Product**

Standards
Role: Multi-Principal Investigator
Principal Investigator: Koopmeiners, Joseph (University of Minnesota)
Sponsoring Organization: National Institutes of Health (NIH)
Date Submitted: May 6, 2024
Funded Amount for Entire Grant Period or Proposed Grant Period: $3,359,580
Percent Effort: 30%
Purpose: Evaluating the impact of a potential product standard requires a comprehensive understanding of the direct impact of the intervention on the toxicity, appeal, and addictiveness of the product, as well as an understanding of the unintended consequences and other down-stream effects. Many of the unanswered questions related to the impact of potential product standards are nuanced and require investigators to integrate data from multiple sources, but existing approaches to data integration do not address the questions most relevant to understanding the regulatory impact of a potential product standard. We propose to develop novel approaches to data integration that will provide researchers with the tools to optimally leverage the diverse set of existing data resources to answer the questions most important to FDACTP as they consider the impact of potential tobacco product regulations.
Status: Received impact score of 17

2. **Proposal: The Digital Study: A multi-institutional study to digitally transform evidence-based obesity management**
Role: Co-Investigator
Principal Investigator: Tignanelli, C. (University of Minnesota)
Sponsoring Organization: National Institutes of Health
Date Submitted: March 1, 2024
Funded Amount for Entire Grant Period or Proposed Grant Period: $3,854,706
Percent Effort: 2%
Purpose: Aim 1: Design an EBOM CDS that gets the right information to the provider, in the right format, at the right time in their clinical workflow. Aim 2: Design EBOM tools that get the right information to the patient, in the right format, during and between interactions in formal care settings. Analyze the ethical, legal, and social issues (ELSI) that surround guideline formulation and maintenance, CDS, and patient use of mobile mHealth platforms in EBOM.

3. **Proposal: Cardiovascular and Renal Protection with SGLT2 Inhibition in Kidney Transplant Recipients (RENAISSANCE)**
Role: Co-Investigator
Principal Investigator: Matas, A. (University of Minnesota)
Sponsoring Organization: National Institutes of Health (NIH)
Date Submitted: February 13, 2024
Funded Amount for Entire Grant Period or Proposed Grant Period: $733,432
Percent Effort: 10%
Purpose: This project will test whether or not SGLT2 inhibition in kidney transplant recipients provides cardiovascular and renal benefits while having acceptable safety.
Status: Received impact score of 22

4. **Proposal: Implementation strategies to PROPEL lung cancer screening in Primary Care: A Program for Resources and Outreach to Providers and Patients to Enhance Lung Cancer Screening**
Role: Co-Investigator

Principal Investigator: Fu, S. (University of Minnesota)
Sponsoring Organization: National Institutes of Health (NIH)
Date Submitted: February 12, 2024
Funded Amount for Entire Grant Period or Proposed Grant Period: $5,687,717
Percent Effort: 10%
Purpose: This project will address the health problem of excess lung cancer deaths due to low adoption of lung cancer screening with annual low dose chest computed tomography. The long-term goal is to reduce lung cancer-related deaths through early detection. The overall objective of this project is to evaluate a package of implementation strategies targeted at improving primary care conduct of lung cancer screening. We hypothesize that PROPELS will increase clinic-level lung cancer screening rates that will be sustained after the facilitation intervention.

5. **Proposal: ConnectedNest: a digital platform connecting individuals with cancer to social care**
Role: Co-Investigator
Principal Investigator: Haynes, D. (University of Minnesota)
Sponsoring Organization: XanthosHealth LLC
Date Submitted: December 11, 2023
Funded Amount for Entire Grant Period or Proposed Grant Period: $728,083
Percent Effort: 5%
Purpose: Social determinants of health (SDoH), such as housing instability, food insecurity, and financial burden largely shape the health and well-being of individuals, create health inequities, and drive a large portion of avoidable adverse health outcomes and healthcare costs. With new advancements in treatment and rising out-of-pocket expenses, individuals facing cancer are especially vulnerable to the adverse effects of SDoH. To address these barriers, a novel solution is needed to support oncology patients, clinical teams, and community-based organizations (CBOs) across the cancer continuum. In a Phase I contract award, XanthosHealth developed ConnectedNest, a novel electronic social care referral platform to screen for SDoH needs and connect individuals with cancer to social and community services provided by CBOs while engaging the oncology team in the SDoH referral process. Through additional funding, we completed a pilot study in Minneapolis, Minnesota, in partnership with Minnesota Cancer Alliance, involving the collaboration of 14 community-based organizations (CBOs) focused on cancer. We enrolled 60 cancer survivors from these CBOs to utilize the ConnectedNest platform for a 90-day duration. Our study involved the collection and analysis of crucial metrics related to patient and CBO engagement, (SDoH) needs, and the volume of feasible social care referrals. In Phase II, we will enhance the technical features and integration capabilities of ConnectedNest based on our learnings in Phase I and our completed pilot study. We will then implement and test the platform among patients seen at multiple oncology clinics, evaluating health outcomes of patients who use the platform. Our research partner is the University of Minnesota.

6. **Proposal: Mid Scale RI-2: A CoRE platform for neuroimaging, multi-omic, and multi-ethnic research**
Role: Co-Investigator
Principal Investigator: Basu, S. (University of Minnesota), Feckzo, E. (University of Minnesota), Fair, D. (University of Minnesota), Rao, S. (University of Minnesota), Evans, A. (University of Minnesota)
Sponsoring Organization: The National Science Foundation
Date Submitted: June 14, 2023
Funded Amount for Entire Grant Period or Proposed Grant Period: $67,805,707

Percent Effort: 10%
Purpose: Our proposed project aims to develop a Global Brain Trust (GBT) that will comprise six pillars. 1) GBT Platform: a secure, global web-based informatics service for storing, cleaning, exploring, sharing, and analyzing data. 2) GBT Exchange will provide methods to harmonize and standardize disparate data contributions, along with a growing portfolio of interoperable APIs for external brain and genetics applications to access this harmonized data. 3) GBT Governance will collaborate with local governments, investigators, and data oversight groups to implement data access controls and oversight tools that reflect the norms, bioethics guidance, and regulations of distinct communities, making the platform accessible, scalable, and respectful to local rules and regulations. 4) GBT Computing will democratize analytics and computing services via a well-established international high-performance computing portal, CBRAIN. 5) GBT Solutions, through the Genomic Data Commons, will devise novel informatics solutions, methods, and tools to overcome brain-genetics challenges. 6) GBT Learning will prepare the next generation of data scientists, who are diverse and globally representative, to face the complex challenges of the future.

7. **Proposal: Evaluation of the Trauma Intervention Prediction (TIP) Platform for the Implementation of Intervention-Based Trauma Triage Prediction Model**
Role: Co-Investigator
Principal Investigator: Tignanelli, C. (University of Minnesota)
Sponsoring Organization: Coalition for National Trauma Research
Date Submitted: May 2, 2023
Funded Amount for Entire Grant Period or Proposed Grant Period: $3,989,998
Percent Effort: 13% Y1, 12% Y2, 0% Y3, 10% Y4-Y5
Purpose: The overarching goal of this proposal is to implement and standardize a rapid and simple predictive tool that will improve the triage of adult trauma patients and reduce undertriage mortality through a prospective multicenter randomized trial.

Publications

Caret(^) - indicates co-first author
Underline - indicates student or trainee author

Peer-Reviewed Journal Article

1. Evans, M. D., Helgeson, E. S., Rule, A. D., **Vock, D. M**., & Matas, A. J. (2024). Consequences of low estimated glomerular filtration rate either before or early after kidney donation. *American Journal of Transplantation*, *S1600-6135*(24)00374-5. Advance online publication. https://doi.org/10.1016/j.ajt.2024.04.023

2. **Vock, D. M.**, Humphreville, V., Ramanathan, K. V., Adams, A. B., Lim, N., Nguyen, V. H., . . . Chinnakotla, S. (2024). The landscape of liver transplantation for patients with Alcohol-associated liver disease in USA. *Liver Transplantation*. In press doi: 10.1097/LVT.0000000000000394

3. Fox, C. K., Molitor, S. J., **Vock, D. M.**, Peterson, C. B., Crow, S. J., & Gross, A. C. (2024). Appetitive and psychological phenotypes of pediatric patients with obesity. *Pediatric Obesity, 19*(4), e13101. doi: 10.1111/ijpo.13101

4. Fox, C. K., **Vock, D. M.**, Sherwood, N. E., Gross, A. C., Ryder, J. R., Bensignor, M. O., . . . Kelly, A. S. (2024). SMART use of medications for the treatment of adolescent severe obesity: A sequential multiple assignment randomized trial protocol. *Contemporary Clinical Trials, 138*, 107444. PubMed Central ID Number: PMC11037878 doi: 10.1016/j.cct.2024.107444

5. Kizilbash, S. J., Evans, M. D., **Vock, D. M.**, Chinnakotla, S., & Chavers, B. M. (2024). Should children receive a kidney transplant before 2years of age? *Pediatric Transplantation, 28*(1), e14631. doi: 10.1111/petr.14631

6. Wilhelm, A. K., Evans, M. D., Xiong, Z., Ortega, L., **Vock, D. M.**, Maruyama, G., & Allen, M. L. (2024). School Connectedness and Adolescent E-cigarette Susceptibility in an Urban Sample of Middle and High School Students. *Prevention Science: The Official Journal of the*

7. Sur, A., DeLiema, M., **Vock, D. M.**, Boyle, P., & Yu, L. (2023). A Microsimulation of Well-Being and Literacy Interventions to Reduce Scam Susceptibility in Older Adults. *Journal of Applied Gerontology, 42*(12), 2360-2370. PubMed Central ID Number: PMC10843831 doi: 10.1177/07334648231196850

8. Lyden, G. R., **Vock, D. M.**, Helgeson, E. S., Finger, E. B., Matas, A. J., & Snyder, J. J. (2023). Transportability of causal inference under random dynamic treatment regimes for kidney-pancreas transplantation. *Biometrics, 79*(4), 3165-3178. doi: 10.1111/biom.13899

9. Patrick, M. E., Sur, A., Arterberry, B., Peterson, S., Morrell, N., & **Vock, D. M.** (2023). Examining engagement effects in an adaptive preventive intervention for college student drinking. *Journal of Consulting and Clinical Psychology, 91*(11), 652-664. PubMed Central ID Number: PMC10591876 doi: 10.1037/ccp0000845

10. Zhang, Y., **Vock, D. M.**, Patrick, M. E., & Murray, T. A. (2023). Modified interactive Q-learning for attenuating the impact of model misspecification with treatment effect heterogeneity. *Statistical Methods in Medical Research, 32*(11), 2240-2253. PubMed Central ID Number: PMC10683339 doi: 10.1177/09622802231206471

11. Deng, C., Wolf, J. M., **Vock, D. M.**, Carroll, D. M., Boatman, J. A., Hatsukami, D. K., . . . Koopmeiners, J. S. (2023). Practical guidance on modeling choices for the virtual twins method. *Journal of Biopharmaceutical Statistics, 33*(5), 653-676. PubMed Central ID Number: PMC10480344 doi: 10.1080/10543406.2023.2170404

12. Groene, E. A., Norby, F. L., Eaton, A. A., Mason, S. M., Enns, E. A., Kulasingam, S., & **Vock, D. M.** (2023). Diagnosed Gonorrhea Among Privately Insured Women: Analysis of United States Claims Data. *Journal of Women's Health, 32*(9), 942-949. PubMed Central ID Number: PMC10510688 doi: 10.1089/jwh.2023.0006

13. Canahuate, G., Wentzel, A., Mohamed ASR, van Dijk, L. V., **Vock, D. M.**, Elgohari, B., . . . Marai, G. E. (2023). Spatially-aware clustering improves AJCC-8 risk stratification performance in oropharyngeal carcinomas. *Oral Oncology, 144*, 106460. PubMed Central ID Number: PMC10561377 doi: 10.1016/j.oraloncology.2023.106460

14. Johannesson, L., Sawinski, D., **Vock, D. M.**, Kristek, J., Fronek, J., Richards, E. G., . . . Testa, G. (2023). A Multi-Institutional Report of Intermediate-Term Kidney Outcomes in Uterus Transplant Recipients. *Kidney International Reports, 8*(10), 2156-2159. PubMed Central ID Number: PMC10577357 doi: 10.1016/j.ekir.2023.07.036

15. Fu, S. S., Rothman, A. J., **Vock, D. M.**, Lindgren, B. R., Almirall, D., Begnaud, A., . . . Joseph, A. M. (2023). Optimizing Longitudinal Tobacco Cessation Treatment in Lung Cancer Screening: A Sequential, Multiple Assignment, Randomized Trial. *JAMA Network Open, 6*(8), e2329903. PubMed Central ID Number: PMC10450571 doi: 10.1001/jamanetworkopen.2023.29903

16. Palzer, E. F., Helgeson, E. S., Evans, M. D., **Vock, D. M.**, & Matas, A. J. (2023). Long-term Outcomes Associated With Post-kidney Donation Pregnancy Complications. *Transplantation, 107*(7), 1615-1623. PubMed Central ID Number: PMC10293045 doi: 10.1097/TP.0000000000004540

17. Zhang, Y., **Vock, D. M.**, Patrick, M. E., Finestack, L. H., & Murray, T. A. (2023). Outcome trajectory estimation for optimal dynamic treatment regimes with repeated measures. *Journal of the Royal Statistical Society. Series C, Applied statistics, 72*(4), 976-991. PubMed Central ID Number: PMC10474873 doi: 10.1093/jrsssc/qlad037

18. **Vock, D. M.**, Helgeson, E. S., Mullan, A. F., Issa, N. S., Sanka, S., Saiki, A. C., . . . Matas, A. J. (2023). The Minnesota attributable risk of kidney donation (MARKD) study: a retrospective cohort study of long-term (>50 year) outcomes after kidney donation compared to well-matched healthy controls. *BMC Nephrology, 24*(1), 121. PubMed Central ID Number: PMC10152793 doi: 10.1186/s12882-023-03149-7

19. McKearnan, S. B., **Vock, D. M.**, Marai, G. E., Canahuate, G., Fuller, C. D., & Wolfson, J. (2023). Feature selection for support vector regression using a genetic algorithm. *Biostatistics, 24*(2), 295-308. PubMed Central ID Number: PMC10102886 doi: 10.1093/biostatistics/kxab022

20. Bricker, J., Miao, Z., Mull, K., Santiago-Torres, M., & **Vock, D. M.** (2023). Can a Single Variable Predict Early Dropout From Digital Health Interventions? Comparison of Predictive Models From Two Large Randomized Trials. *Journal of Medical Internet Research, 25*, e43629. PubMed Central ID Number: PMC9898835 doi: 10.2196/43629

21. Cain, C. H., Murray, T. A., Rudser, K. D., Rothman, A. J., Melzer, A. C., Joseph, A. M., & **Vock, D. M.** (2022). Design considerations and analytical framework for reliably identifying a beneficial individualized treatment rule. *Contemporary Clinical Trials, 123*, 106951. doi: 10.1016/j.cct.2022.106951

22. Chinnakotla, S., Beilman, G. J., **Vock, D.**, Freeman, M. L., Kirchner, V., Dunn, T. B., ... & Bellin, M. D. (2022). Intraportal islet autotransplantation independently improves quality of life after total pancreatectomy in patients with chronic refractory pancreatitis. *Annals of Surgery*, 276(3), 441-449. PubMed Central ID Number: doi: https://doi.org/10.1097/SLA.0000000000005553

23. Wolf, J. M., Koopmeiners, J. S., & **Vock, D. M.** (2022). A permutation procedure to detect heterogeneous treatment effects in randomized clinical trials while controlling the type I error rate. *Clinical Trials, 19*(5), 512-521. PubMed Central ID Number: PMC9529771 doi: 10.1177/17407745221095855

24. Helgeson, E. S., Palzer, E. F., **Vock, D. M.**, Porrett, P., Sawinski, D., & Matas, A. J. (2022). Pre-kidney Donation Pregnancy Complications and Long-term Outcomes. *Transplantation, 106*(10), 2052-2062. PubMed Central ID Number: PMC9529757 doi: 10.1097/TP.0000000000004146

25. **Vock, D. M.**, Neprash, H. T., Hanson, A. V., Elert, B. A., Satin, D. J., Rothman, A. J., . . . Golberstein, E. (2022). PRescribing Interventions for Chronic pain using the Electronic health record (PRINCE): Study protocol. *Contemporary Clinical Trials, 121*, 106905. doi: 10.1016/j.cct.2022.106905

26. Barkauskas, C., Mylonakis, E., Poulakou, G., Young, B. E., **Vock, D. M.**, Siegel, L., . . . Lundgren, J. D. (2022). Efficacy and Safety of Ensovibep for Adults Hospitalized With COVID-19 : A Randomized Controlled Trial. *Annals of Internal Medicine, 175*(9), 1266-1274. PubMed Central ID Number: PMC9384272 doi: 10.7326/M22-1503

27. Begnaud, A., Fu, S. S., Lindgren, B., Melzer, A., Rothman, A. J., Schertz, K., **Vock, D.M.**, Joseph, A. M. (2022). Latent constructs identified in older individuals who smoke cigarettes and are eligible for lung cancer screening: Factor analysis of baseline data from the PLUTO smoking cessation trial. *Contemporary Clinical Trials Communications, 29*, 100977. PubMed

Central ID Number: PMC9424922 doi: 10.1016/j.conctc.2022.100977

28. Lyden, G. R., **Vock, D. M.**, Sur, A., Morrell, N., Lee, C. M., & Patrick, M. E. (2022). Deeply Tailored Adaptive Interventions to Reduce College Student Drinking: a Real-World Application of Q-Learning for SMART Studies. *Prevention Science, 23*(6), 1053-1064. PubMed Central ID Number: PMC9357163 doi: 10.1007/s11121-022-01371-7

29. Neprash, H. T., **Vock, D. M.**, Hanson, A., Elert, B., Short, S., Karaca-Mandic, P., . . . Golberstein, E. (2022). Effect of Integrating Access to a Prescription Drug Monitoring Program Within the Electronic Health Record on the Frequency of Queries by Primary Care Clinicians: A Cluster Randomized Clinical Trial. *JAMA Health Forum, 3*(6), e221852. PubMed Central ID Number: PMC9168784 doi: 10.1001/jamahealthforum.2022.1852

30. Lyden, G. R., **Vock, D. M.**, Barrett, E. S., Sathyanarayana, S., Swan, S. H., & Nguyen, R. H. (2022). A permutation-based approach to inference for weighted sum regression with correlated chemical mixtures. *Statistical Methods in Medical Research, 31*(4), 579-593. PubMed Central ID Number: PMC9883011 doi: 10.1177/09622802211013578

31. Kotalik, A., **Vock, D. M.**, Hobbs, B. P., & Koopmeiners, J. S. (2022). A group-sequential randomized trial design utilizing supplemental trial data. *Statistics in Medicine, 41*(4), 698-718. PubMed Central ID Number: PMC8795487 doi: 10.1002/sim.9249

32. Venkatasubramaniam, A., Koch, B., Erickson, L., French, S., **Vock, D.**, & Wolfson, J. (2022). Assessing effect heterogeneity of a randomized treatment using conditional inference trees. *Statistical Methods in Medical Research*, *31*(3), 549–562. doi: 10.1177/09622802211052831

33. ITAC (INSIGHT 013) Study Group, Polizzotto, M. N., Nordwall, J., Babiker, A. G., Phillips, A., **Vock, D. M.**, . . . , Lane, H.C. (2022) Hyperimmune immunoglobulin for hospitalised patients with COVID-19 (ITAC): a double-blind, placebo-controlled, phase 3, randomised trial. *Lancet*, *399*(10324), 530-540. PubMed Central ID Number: PMC8797010 doi: 10.1016/S0140-6736(22)00101-5.

34. ACTIV-3/Therapeutics for Inpatients with COVID-19 (TICO) Study Group, Self, W. H., Sandkovsky, U., Reilly, C. S., **Vock, D. M.**, Gottlieb, R. L., Mack, M., . . ., Lundgren J.D. (2022). Efficacy and safety of two neutralising monoclonal antibody therapies, sotrovimab and BRII-196 plus BRII-198, for adults hospitalised with COVID-19 (TICO): a randomised controlled trial. *Lancet Infectious Disease*, *22*(5), 622–635.. doi: 10.1016/S1473-3099(21)00751-9. Epub ahead of print. PMID: 34953520; PubMed Central ID Number: PMC8700279.

35. Helgeson, E. S., **Vock, D. M.**, & Bair, E. (2021). Nonparametric cluster significance testing with reference to a unimodal null distribution. *Biometrics, 77*(4), 1215-1226. doi: 10.1111/biom.13376

36. Boatman, J. A., **Vock, D. M.**, & Koopmeiners, J. S. (2021). Borrowing from supplemental sources to estimate causal effects from a primary data source. *Statistics in Medicine, 40*(24), 5115-5130. doi: 10.1002/sim.9114

37. Murphy, D., Reule, S., **Vock, D.**, Drawz, P. (2021). Acute Kidney Injury in the Outpatient Setting: Developing and Validating a Risk Prediction Model. *Kidney Medicine*, *4*(1):100376. PubMed Central ID Number: PMC8767133. doi: 10.1016/j.xkme.2021.08.011

38. Kotalik, A., **Vock, D. M.**, Donny, E. C., Hatsukami, D. K., & Koopmeiners, J. S. (2021). Dynamic borrowing in the presence of treatment effect heterogeneity. *Biostatistics, 22*(4), 789-804. PubMed Central ID Number: PMC8511947 doi: 10.1093/biostatistics/kxz066

39. Wentzel, A., Luciani, T., van Dijk, L. V., Taku, N., Elgohari, B., Mohamed ASR, Guadalupe,

C., Fuller, C. D., **Vock, D. M.**, & Elisabeta Marai, G. (2021). Precision association of lymphatic disease spread with radiation-associated toxicity in oropharyngeal squamous carcinomas. *Radiotherapy and Oncology, 161*, 152-158. PubMed Central ID Number: PMC8479634 doi: 10.1016/j.radonc.2021.06.016

40. Patel, H., **Vock, D. M.**, Marai, G. E., Fuller, C. D., Mohamed ASR, & Canahuate, G. (2021). Oropharyngeal cancer patient stratification using random forest based-learning over high-dimensional radiomic features. *Scientific Reports, 11*(1), 14057. PubMed Central ID Number: PMC8263609 doi: 10.1038/s41598-021-92072-8

41. Patrick, M. E., Lyden, G. R., Morrell, N., Mehus, C. J., Gunlicks-Stoessel, M., Lee, C. M., . . . **Vock, D. M.** (2021). Main outcomes of M-bridge: A sequential multiple assignment randomized trial (SMART) for developing an adaptive preventive intervention for college drinking. *Journal of Consulting and Clinical Psychology, 89*(7), 601-614. PubMed Central ID Number: PMC8371917 doi: 10.1037/ccp0000663

42. Serrano, O. K., Peterson, K. J., **Vock, D. M.**, Berglund, D., Kandaswamy, R., Lake, J. R., . . . Chinnakotla, S. (2021). Clinical Impact of Antecedent Bariatric Surgery on Liver Transplant Outcomes: A Retrospective Matched Case-control Study. *Transplantation, 105*(6), 1280-1284. doi: 10.1097/TP.0000000000003378

43. Peterson, R. L., Koopmeiners, J. S., Smith, T. T., Murphy, S. E., Donny, E. C., & **Vock, D. M.** (2021). Detecting participant noncompliance across multiple time points by modeling a longitudinal biomarker. *Clinical Trials, 18*(1), 28-38. PubMed Central ID Number: PMC9364488 doi: 10.1177/1740774520956949

44. Yu, F., **Vock, D. M.**, Zhang, L., Salisbury, D., Nelson, N. W., Chow, L. S., . . . Wyman, J. F. (2021). Cognitive Effects of Aerobic Exercise in Alzheimer's Disease: A Pilot Randomized Controlled Trial. *Journal of Alzheimer's Disease, 80*(1), 233-244. PubMed Central ID Number: PMC8075384 doi: 10.3233/JAD-201100

45. Melzer, A. C., Begnaud, A., Lindgren, B. R., Schertz, K., Fu, S. S., **Vock, D. M.**, . . . Joseph, A. M. (2021). Self-reported exercise capacity among current smokers eligible for lung cancer screening: Distribution and association with key comorbidities. *Cancer treatment and research communications, 28*, 100443. PubMed Central ID Number: PMC8405582 doi: 10.1016/j.ctarc.2021.100443

46. Mulasi, U., **Vock, D. M.**, Jager-Wittenaar, H., Teigen, L., Kuchnia, A. J., Jha, G., . . . Earthman, C. P. (2020). Nutrition Status and Health-Related Quality of Life Among Outpatients With Advanced Head and Neck Cancer. *Nutrition in Clinical Practice: The Official Publication of the American Society for Parenteral and Enteral Nutrition, 35*(6), 1129-1137. PubMed Central ID Number: PMC7483147 doi: 10.1002/ncp.10476

47. Peterson KJ, Serrano O, Odegard M, Mongin SJ, Berglund D, **Vock DM**, Chinnakotla S, Dunn TB, Finger EB, Kandaswamy R, Pruett TL, Matas, AJ. (2020). Outcomes for Somali Immigrant Kidney Transplant Recipients in a Large-Volume Transplant Center. *Transplantation Reports*. Dec;*5*(4). 100066. doi: 10.1016/j.tpr.2020.100066

48. **Vock, D. M.**, Kuehne, A., Northrop, E. F., Matas, A. J., Larson Nath, C., & Chinnakotla, S. (2020). Pediatric retransplantation of the liver: A prognostic scoring tool. *Pediatric Transplantation, 24*(7), e13775. doi: 10.1111/petr.13775

49. Gonzalez Ginestet, P., Kotalik, A., **Vock, D. M.**, Wolfson, J., & Gabriel, E. E. (2020). Stacked Inverse Probability of Censoring Weighted Bagging: A Case Study in the InfCareHIV Register. *J R Stat Soc Ser C Appl Stat*. Nov 22;*70*(1):51-65. doi: 10.1111/rssc.12448

50. Patrick, M. E., Boatman, J. A., Morrell, N., Wagner, A. C., Lyden, G. R., Nahum-Shani, I., . .

. **Vock D. M.**, Almirall, D. (2020). A sequential multiple assignment randomized trial (SMART) protocol for empirically developing an adaptive preventive intervention for college student drinking reduction. *Contemporary Clinical Trials, 96*, 106089. PubMed Central ID Number: PMC7494596 doi: 10.1016/j.cct.2020.106089

51. Evans, M. D., Diaz, J., Adamusiak, A. M., Pruett, T. L., Kirchner, V. A., Kandaswamy, R., Humphreville, V. R., Leventhal, T. M., Grosland, J. O., **Vock, D. M.,** Matas, A. J., & Chinnakotla, S. (2020). Predictors of Survival After Liver Transplantation in Patients With the Highest Acuity (MELD ≥40). *Annals of Surgery, 272*(3), 458-466. PubMed Central ID Number: PMC7855276 doi: 10.1097/SLA.0000000000004211

52. Koch, B., **Vock, D. M.**, Wolfson, J., & Vock, L. B. (2020). Variable selection and estimation in causal inference using Bayesian spike and slab priors. *Statistical Methods in Medical Research, 29*(9), 2445-2469. PubMed Central ID Number: PMC10013449 doi: 10.1177/0962280219898497

53. Wentzel, A., Hanula, P., van Dijk, L. V., Elgohari, B., Mohamed ASR, Cardenas, C. E., Fuller, C. D., **Vock, D. M.,** Canahuate, G., & Marai, G. E. (2020). Precision toxicity correlates of tumor spatial proximity to organs at risk in cancer patients receiving intensity-modulated radiotherapy. *Radiotherapy and Oncology, 148*, 245-251. PubMed Central ID Number: PMC7390671 doi: 10.1016/j.radonc.2020.05.023

54. Tosado, J., Zdilar, L., Elhalawani, H., Elgohari, B., **Vock, D. M.**, Marai, G. E., . . . Canahuate, G. (2020). Clustering of Largely Right-Censored Oropharyngeal Head and Neck Cancer Patients for Discriminative Groupings to Improve Outcome Prediction. *Scientific reports, 10*(1), 3811. PubMed Central ID Number: PMC7051972 doi: 10.1038/s41598-020-60140-0

55. **Vock, D. M.**, & Matas, A. J. (2020). Rapid discontinuation of prednisone in kidney transplant recipients from at-risk subgroups: an OPTN/SRTR analysis. *Transplant International, 33*(2), 181-201. doi: 10.1111/tri.13530

56. Luciani, T., Wentzel, A., Elgohari, B., Elhalawani, H., Mohamed, A., Canahuate, G., **Vock, D. M.,** Fuller, C.D., & Marai, G. E. (2020). A spatial neighborhood methodology for computing and analyzing lymph node carcinoma similarity in precision medicine. *Journal of Biomedical Informatics, 112S*, 100067. PubMed Central ID Number: PMC10695270 doi: 10.1016/j.yjbinx.2020.100067

57. Wentzel, A., Hanula, P., Luciani, T., Elgohari, B., Elhalawani, H., Canahuate, G., **Vock, D.**, Fuller, C. D., & Marai, G.E. (2020). Cohort-based T-SSIM Visual Computing for Radiation Therapy Prediction and Exploration. *IEEE Trans Vis Comput Graph*. Jan;*26*(1):949-959. doi: 10.1109/TVCG.2019.2934546. Epub 2019 Aug 22. PMID: 31442988; PMCID: PMC7253296.

58. Koopmeiners, J. S., **Vock, D. M.**, Boatman, J. A., Carroll, D., Colby, S. M., Donny, E. C., . . . Tidey, J. W. (2019). The Importance of Estimating Causal Effects for Evaluating a Nicotine Standard for Cigarettes. *Nicotine & Tobacco Research, 21*(Suppl 1), S22-S25. PubMed Central ID Number: PMC6939761 doi: 10.1093/ntr/ntz119

59. Kizilbash, S. J., Snyder, J., **Vock, D. M.**, & Chavers, B. M. (2019). Trends in kidney transplant outcomes in children and young adults with cystinosis. *Pediatric Transplantation, 23*(8), e13572. doi: 10.1111/petr.13572

60. Matas, A. J., & **Vock, D. M.** (2019). Prednisone-free maintenance immunosuppression in obese kidney transplant recipients. *Clinical Transplantation, 33*(10), e13668. doi: 10.1111/ctr.13668

61. MD Anderson Head and Neck Cancer Symptom Working Group, Christopherson, K. M.,

Ghosh, A., Mohameda, A. S. R., Kamal, M., Gunn, G. B., Dalea, T., Kalpathy-Cramer, J., Messera, J., Garden, A. S., Elhalawani, H., Frank, S. J., Lewin, J., Morrison, W. H., Phan, J., Gross, N., Ferrarotto, R., Weber, R. S., Rosenthal, D. I., Lai, S.Y., Hutcheson, K., Fuller, C. D.; Spatial-Non-spatial Multi-Dimensional Analysis of Radiotherapy Treatment/Toxicity Team (SMART3), Mohamed, A. S. R, Marai, G. E., Canahuate, G., **Vock, D. M**., & Fuller, D. (2019). Chronic radiation-associated dysphagia in oropharyngeal cancer survivors: Towards age-adjusted dose constraints for deglutitive muscles. *Clin Transl Radiat Oncol*. Jun 15;*18*:16-22. doi: 10.1016/j.ctro.2019.06.005. PMID: 31341972; PMCID: PMC6610668.

62. Gross, A. C., Kaizer, A. M., **Vock, D. M.**, Siddiqui, S., & Fox, C. K. (2019). Cognitive, emotional, and behavioral contributors to early childhood weight status. *Journal of Child Health Care, 23*(3), 382-391. doi: 10.1177/1367493519852462

63. Serrano, O. K., Mongin, S. J., Berglund, D., Goduguchinta, V., Reddy, A., **Vock, D. M.**, . . . Chinnakotla, S. (2019). Clinical utility of postoperative phosphate recovery profiles to predict liver insufficiency after living donor hepatectomy. *American Journal of Surgery, 218*(2), 374-379. doi: 10.1016/j.amjsurg.2019.01.006

64. Serrano, O. K., **Vock, D. M.**, Snyder, J. J., Chinnakotla, S., Kandaswamy, R., Pruett, T. L., . . . Finger, E. B. (2019). Influence of the procurement surgeon on transplanted abdominal organ outcomes: An SRTR analysis to evaluate regional organ procurement collaboration. *American Journal of Transplantation, 19*(8), 2219-2231. doi: 10.1111/ajt.15301

65. Valgimigli, M., Garcia-Garcia, H. M., Vrijens, B., Vranckx, P., McFadden, E. P., Costa, F., Pieper, K., **Vock, D. M.**, . . . Tijssen JGP (2019). Standardized classification and framework for reporting, interpreting, and analysing medication non-adherence in cardiovascular clinical trials: a consensus report from the Non-adherence Academic Research Consortium (NARC). *European Heart Journal, 40*(25), 2070-2085. PubMed Central ID Number: PMC7963139 doi: 10.1093/eurheartj/ehy377

66. Peterson, R. L., **Vock, D. M.**, Babiker, A., Powers, 3rd, J. H., Hunsberger, S., Angus, B., . . . Neaton, J. D. (2019). Comparison of an ordinal endpoint to time-to-event, longitudinal, and binary endpoints for use in evaluating treatments for severe influenza requiring hospitalization. *Contemporary Clinical Trials Communications, 15*, 100401. PubMed Central ID Number: PMC6609815 doi: 10.1016/j.conctc.2019.100401

67. Muller, C. J., Alonso, A., Forster, J., **Vock, D. M.**, Zhang, Y., Gottesman, R. F., . . . MacLehose, R. F. (2019). Stroke Incidence and Survival in American Indians, Blacks, and Whites: The Strong Heart Study and Atherosclerosis Risk in Communities Study. *Journal of the American Heart Association, 8*(12), e010229. PubMed Central ID Number: PMC6645631 doi: 10.1161/JAHA.118.010229

68. Kizilbash, S. J., Rheault, M. N., Wang, Q., **Vock, D. M.**, Chinnakotla, S., Pruett, T., & Chavers, B. M. (2019). Kidney transplant outcomes associated with the use of increased risk donors in children. *American Journal of Transplantation, 19*(6), 1684-1692. doi: 10.1111/ajt.15231

69. Odegard, M., Serrano, O. K., Peterson, K., Mongin, S. J., Berglund, D., **Vock, D. M.**, . . . Matas, A. J. (2019). Delivery of transplant care among Hmong kidney transplant recipients: Outcomes from a single institution. *Clinical Transplantation, 33*(5), e13539. doi: 10.1111/ctr.13539

70. Boatman JA, Casty K, **Vock DM**, Murphy SE, Denlinger-Apte R, Smith TT, Hatsukami DK, Donny EC, Koopmeiners JS. (2019). Classification Accuracy of Biomarkers of Compliance. *Tob Regul Sci.* May 1;*5*(3):301-19.

71. King, J. C., Beigel, J. H., Ison, M. G., Rothman, R. E., Uyeki, T. M., Walker, R. E., Neaton, J. D., Tegeris, J. S., Zhou, J. A., Armstrong, K. L., Carter, W., Miele, P. S., Willis, M. S., Dugas, A. F., Tracy, L. A., **Vock, D. M.,** & Bright, R. A. (2019). Clinical Development of Therapeutic Agents for Hospitalized Patients With Influenza: Challenges and Innovations. *Open Forum Infectious Diseases, 6*(4), ofz137. PubMed Central ID Number: PMC6479095 doi: 10.1093/ofid/ofz137

72. Benson, G., Sidebottom, A. C., Sillah, A., **Vock, D. M.**, Vacquier, M. C., Miedema, M. D., & VanWormer, J. J. (2019). Population-level changes in lifestyle risk factors for cardiovascular disease in the Heart of New Ulm Project. *Preventive Medicine Reports, 13*, 332-340. PubMed Central ID Number: PMC6369314 doi: 10.1016/j.pmedr.2019.01.018

73. Yu, F., Lin, F. V., Salisbury, D. L., Shah, K. N., Chow, L., **Vock, D.**, Nelson, N. W., Porsteinsson, A. P., Jack, C. Jr. (2019). Efficacy and mechanisms of combined aerobic exercise and cognitive training in mild cognitive impairment: study protocol of the ACT trial. *Trials*. Dec 22;*19*(1):700. doi: 10.1186/s13063-018-3054-0. PMID: 30577848; PMCID: PMC6303946.

74. Zdilar, L., **Vock, D. M.**, Marai, G. E., Fuller, C. D., Mohamed ASR, Elhalawani, H., . . . Canahuate, G. (2019). Evaluating the Effect of Right-Censored End Point Transformation for Radiomic Feature Selection of Data From Patients With Oropharyngeal Cancer. *JCO Clinical Cancer Informatics, 2*, 1-19. PubMed Central ID Number: PMC6354589 doi: 10.1200/CCI.18.00052

75. Ng, S. P., Dyer, B. A., Kalpathy-Cramer, J., Mohamed, A. S. R., Awan, M. J., Gunn, G. B., Phan, J., Zafereo, M., Debnam, J. M., Lewis, C. M., Colen, R. R., Kupferman, M. E., Guha-Thakurta, N., Canahuate, G., Marai, G. E., **Vock, D.**, Hamilton, B., Holland, J., Cardenas, C. E., Lai, S., Rosenthal, D., Fuller, C. D. (2019). A prospective in silico analysis of interdisciplinary and interobserver spatial variability in post-operative target delineation of high-risk oral cavity cancers: Does physician specialty matter? *Clin Transl Radiat Oncol.* Aug 2;*12*:40-46. doi: 10.1016/j.ctro.2018.07.006. PMID: 30148217; PMCID: PMC6105928.

76. Vickery, K. D., Shippee, N. D., Menk, J., Owen, R., **Vock, D. M.**, Bodurtha, P., . . . Linzer, M. (2020). Integrated, Accountable Care For Medicaid Expansion Enrollees: A Comparative Evaluation of Hennepin Health. *Medical Care Research and Review, 77*(1), 46-59. doi: 10.1177/1077558718769481

77. Marai, G. E., Ma, C., Burks, A. T., Pellolio, F., Canahuate, G., **Vock, D. M.**, . . . Fuller, C. D. (2019). Precision Risk Analysis of Cancer Therapy with Interactive Nomograms and Survival Plots. *IEEE Transactions on Visualization and Computer Graphics, 25*(4), 1732-1745. PubMed Central ID Number: PMC6148410 doi: 10.1109/TVCG.2018.2817557

78. Leither, M. D., Murphy, D. P., Bicknese, L., Reule, S., **Vock, D. M.**, Ishani, A., . . . Drawz, P. E. (2019). The impact of outpatient acute kidney injury on mortality and chronic kidney disease: a retrospective cohort study. *Nephrology, Dialysis, Transplantation, 34*(3), 493-501. PubMed Central ID Number: PMC6399485 doi: 10.1093/ndt/gfy036

79. Yadav, K., **Vock, D. M.**, Matas, A. J., Robiner, W. N., & Nevins, T. E. (2019). Medication adherence is associated with an increased risk of cancer in kidney transplant recipients: a cohort study. *Nephrology, Dialysis, Transplantation, 34*(2), 364-370. PubMed Central ID Number: PMC6365768 doi: 10.1093/ndt/gfy210

80. Serrano, O. K., **Vock, D. M.**, Chinnakotla, S., Dunn, T. B., Kandaswamy, R., Pruett, T. L., . . . Finger, E. B. (2019). The Relationships Between Cold Ischemia Time, Kidney Transplant Length of Stay, and Transplant-related Costs. *Transplantation, 103*(2), 401-411. doi:

10.1097/TP.0000000000002309

81. Gunlicks-Stoessel, M., Mufson, L., Bernstein, G., Westervelt, A., Reigstad, K., Klimes-Dougan, B., Cullen, K., Murray, A., & **Vock, D**. (2019). Critical Decision Points for Augmenting Interpersonal Psychotherapy for Depressed Adolescents: A Pilot Sequential Multiple Assignment Randomized Trial. *J Am Acad Child Adolesc Psychiatry*. Jan;*58*(1):80-91. doi: 10.1016/j.jaac.2018.06.032. Epub 2018 Oct 27. PMID: 30577943; PMCID: PMC7549148.

82. Larson, D. B., Wiseman, J. F., **Vock, D. M.**, Berglund, D. M., Roman, A. M., Ibrahim, H. N., & Matas, A. J. (2019). Financial burden associated with time to return to work after living kidney donation. *American Journal of Transplantation, 19*(1), 204-207. doi: 10.1111/ajt.14949

83. Boatman, J. A., **Vock, D. M.**, & Koopmeiners, J. S. (2018). Efficiency and robustness of causal effect estimators when noncompliance is measured with error. *Statistics in Medicine, 37*(28), 4126-4141. PubMed Central ID Number: PMC6647029 doi: 10.1002/sim.7922

84. Boatman, J. A., & **Vock, D. M.** (2018). Estimating the causal effect of treatment regimes for organ transplantation. *Biometrics, 74*(4), 1407-1416. PubMed Central ID Number: PMC9119287 doi: 10.1111/biom.12921

85. Serrano, O. K., **Vock, D. M.**, Dunn, T. B., Kandaswamy, R., & Finger, E. B. (2018). Maximizing Utilization in Pancreas Transplantation: Phenotypic Characteristics Differentiating Aggressive From Nonaggressive Transplant Centers. *Transplantation, 102*(12), 2108-2119. doi: 10.1097/TP.0000000000002334

86. Serrano, O. K., Sengupta, B., Bangdiwala, A., **Vock, D. M.**, Dunn, T. B., Finger, E. B., . . . Kandaswamy, R. (2018). Implications of excess weight on kidney donation: Long-term consequences of donor nephrectomy in obese donors. *Surgery, 164*(5), 1071-1076. doi: 10.1016/j.surg.2018.07.015

87. Serrano, O. K., Bangdiwala, A. S., **Vock, D. M.**, Chinnakotla, S., Dunn, T. B., Finger, E. B., . . . Chavers, B. (2018). Incidence and magnitude of post-transplant cardiovascular disease after pediatric kidney transplantation: Risk factor analysis of 1058 pediatric kidney transplants at the university of Minnesota. *Pediatric Transplantation, 22*(7), e13283. doi: 10.1111/petr.13283

88. Kehm, R. D., Spector, L. G., Poynter, J. N., **Vock, D. M.**, Altekruse, S. F., & Osypuk, T. L. (2018). Does socioeconomic status account for racial and ethnic disparities in childhood cancer survival? *Cancer, 124*(20), 4090-4097. PubMed Central ID Number: PMC6234050 doi: 10.1002/cncr.31560

89. Multidisciplinary Larynx Cancer Working Group, Mulcahy, C. F., Mohamed, A. S. R., Kanwar, A., Hutcheson, K. A., Ghosh, A., **Vock, D.**, Weber, R. S., Lai, S. Y., Gunn, G. B., Zafereo, M., Morrison, W. H., Ferrarotto, R., Garden, A. S., Rosenthal, D. I., Fuller, C. D. (2018). Age-adjusted comorbidity and survival in locally advanced laryngeal cancer. *Head Neck*. Sep;*40*(9):2060-2069. doi: 10.1002/hed.25200. Epub 2018 May 13. PMID: 29756307; PMCID: PMC6131035.

90. Elhalawani, H., Lin, T. A., Volpe, S., Mohamed, A. S. R. , White, A. L., Zafereo, J., Wong, A. J., Berends, J. E., AboHashem, S., Williams, B., Aymard, J. M., Kanwar, A., Perni, S., Rock, C. D., Cooksey, L., Campbell, S., Yang, P., Nguyen, K., Ger, R. B., Cardenas, C.E., Fave, X. J., Sansone, C., Piantadosi, G., Marrone, S., Liu, R., Huang, C., Yu, K., Li, T., Yu, Y., Zhang, Y., Zhu, H., Morris, J. S., Baladandayuthapani, V., Shumway, J. W., Ghosh, A., Pöhlmann, A., Phoulady, H. A., Goyal, V., Canahuate, G., Marai, G. E., **Vock, D.**, Lai, S. Y.,

Mackin, D. S., Court, L. E., Freymann, J., Farahani, K., Kaplathy-Cramer, J., & Fuller, C. D. (2018). Machine Learning Applications in Head and Neck Radiation Oncology: Lessons From Open-Source Radiomics Challenges. *Front Oncol*. Aug 17;*8*:294. doi: 10.3389/fonc.2018.00294. PMID: 30175071; PMCID: PMC6107800.

91. Serrano, O. K., Yadav, K., Bangdiwala, A., **Vock, D. M.**, Dunn, T. B., Finger, E. B., . . . Kandaswamy, R. (2018). Age alone is not a contraindication to kidney donation: Outcomes of donor nephrectomy in the elderly. *Clinical Transplantation, 32*(8), e13287. doi: 10.1111/ctr.13287

92. Sidebottom, A. C., Sillah, A., **Vock, D. M.**, Miedema, M. D., Pereira, R., Benson, G., . . . VanWormer, J. J. (2018). Assessing the impact of the heart of New Ulm Project on cardiovascular disease risk factors: A population-based program to reduce cardiovascular disease. *Preventive Medicine, 112*, 216-221. doi: 10.1016/j.ypmed.2018.04.016

93. **Vock, D. M.**, Vock, L. F. B. (2018). Estimating the Effect of Plate Discipline Using a Causal Inference Framework: An Application of the G-computation Algorithm. J Quant Anal Sports. Jun 27;*14*(2):37-56. doi: 10.1515/jqas-2016-0029

94. Teigen, L. M., Kuchnia, A. J., Nagel, E., Deuth, C., **Vock, D. M.**, Mulasi, U., & Earthman, C. P. (2018). Impact of Software Selection and ImageJ Tutorial Corrigendum on Skeletal Muscle Measures at the Third Lumbar Vertebra on Computed Tomography Scans in Clinical Populations. *JPEN. Journal of Parenteral and Enteral Nutrition, 42*(5), 933-941. doi: 10.1002/jpen.1036

95. McKearnan, S. B., Wolfson, J., **Vock, D. M.**, Vazquez-Benitez, G., & O'Connor, P. J. (2018). Performance of the Net Reclassification Improvement for Nonnested Models and a Novel Percentile-Based Alternative. *American Journal of Epidemiology, 187*(6), 1327-1335. PubMed Central ID Number: PMC5982725 doi: 10.1093/aje/kwx374

96. Matas, A. J., Berglund, D. M., **Vock, D. M.**, & Ibrahim, H. N. (2018). Causes and timing of end-stage renal disease after living kidney donation. *American Journal of Transplantation, 18*(5), 1140-1150. doi: 10.1111/ajt.14671

97. Kehm, R. D., Spector, L. G., Poynter, J. N., **Vock, D. M.**, & Osypuk, T. L. (2018). Socioeconomic Status and Childhood Cancer Incidence: A Population-Based Multilevel Analysis. *American Journal of Epidemiology, 187*(5), 982-991. PubMed Central ID Number: PMC5928452 doi: 10.1093/aje/kwx322

98. Teigen, L. M., DiCecco, S. R., **Vock, D. M.**, Vierow, K. L., Andrews, L., Hammel, K. D., . . . Hurley, D. L. (2018). Use of both quantitative and qualitative methods to improve assessment of resting energy expenditure equation performance in hospitalized adults. *Clinical Nutrition ESPEN, 24*, 120-126. doi: 10.1016/j.clnesp.2018.01.001

99. Koch, B., **Vock, D. M.**, & Wolfson, J. (2018). Covariate selection with group lasso and doubly robust estimation of causal effects. *Biometrics, 74*(1), 8-17. PubMed Central ID Number: PMC5740021 doi: 10.1111/biom.12736

100. M. D. Anderson Cancer Center Head and Neck Quantitative Imaging Working Group, Elhalawani, H., Kanwar, A., Mohamed, A. S. R., White, A., Zafereo, J., Wong, A., Berends, J., Abohashem, S., Kamal, M., Williams, B., Aymard, J. M., Perni, S., Yang, P., Meheissen, M., Elgohari, B., Ger, R., Cardenas, C., Fave, X., Zhang, L., Mackin, D., Marai, G. E., **Vock, D. M.**, Canahuate, G. M., Lai, S. Y., Gunn, G. B., Garden, A. S., Rosenthal, D. I., Court, L., Fuller, C. D. (2018). Investigation of radiomic signatures for local recurrence using primary tumor texture analysis in oropharyngeal head and neck cancer patients. *Sci Rep*. Jan 24;*8*(1):1524. doi: 10.1038/s41598-017-14687-0. PMID: 29367653; PMCID: PMC5784146.

101. Kehm, R. D., Osypuk, T. L., Poynter, J. N., **Vock, D. M.**, & Spector, L. G. (2018). Do pregnancy characteristics contribute to rising childhood cancer incidence rates in the United States? *Pediatric Blood & Cancer, 65*(3). PubMed Central ID Number: PMC5766387 doi: 10.1002/pbc.26888

102. Yu, F., **Vock, D. M.**, & Barclay, T. R. (2018). Executive function: Responses to aerobic exercise in Alzheimer's disease. *Geriatric Nursing (New York, N.Y.), 39*(2), 219-224. PubMed Central ID Number: PMC5897173 doi: 10.1016/j.gerinurse.2017.09.005

103. Matas, A. J., **Vock, D. M.**, & Ibrahim, H. N. (2018). GFR ≤25 years postdonation in living kidney donors with (vs. without) a first-degree relative with ESRD. *American journal of transplantation : official journal of the American Society of Transplantation and the American Society of Transplant Surgeons, 18*(3), 625-631. PubMed Central ID Number: PMC5820146 doi: 10.1111/ajt.14525

104. Joseph, A. M., Rothman, A. J., Almirall, D., Begnaud, A., Chiles, C., Cinciripini, P. M., . . . **Vock, D. M.** (2018). Lung Cancer Screening and Smoking Cessation Clinical Trials. SCALE (Smoking Cessation within the Context of Lung Cancer Screening) Collaboration. *American Journal of Respiratory and Critical Care Medicine, 197*(2), 172-182. PubMed Central ID Number: PMC5768904 doi: 10.1164/rccm.201705-0909CI

105. Boatman, J. A., **Vock, D. M.**, Koopmeiners, J. S., & Donny, E. C. (2018). Estimating causal effects from a randomized clinical trial when noncompliance is measured with error. *Biostatistics, 19*(1), 103-118. PubMed Central ID Number: PMC6075374 doi: 10.1093/biostatistics/kxx029

106. Mulasi, U., **Vock, D. M.**, Kuchnia, A. J., Jha, G., Fujioka, N., Rudrapatna, V., . . . Earthman, C. P. (2018). Malnutrition Identified by the Academy of Nutrition and Dietetics and American Society for Parenteral and Enteral Nutrition Consensus Criteria and Other Bedside Tools Is Highly Prevalent in a Sample of Individuals Undergoing Treatment for Head and Neck Cancer. *JPEN. Journal of Parenteral and Enteral Nutrition, 42*(1), 139-147. doi: 10.1177/0148607116672264

107. Ibrahim, H. N., Berglund, D. M., Jackson, S., **Vock, D. M.**, Foley, R. N., & Matas, A. J. (2017). Renal Consequences of Diabetes After Kidney Donation. *American Journal of Transplantation, 17*(12), 3141-3148. PubMed Central ID Number: PMC5693658 doi: 10.1111/ajt.14416

108. Kuchnia, A. J., Teigen, L. M., Cole, A. J., Mulasi, U., Gonzalez, M. C., Heymsfield, S. B., **Vock, D. M.,** & Earthman, C. P. (2017). Phase Angle and Impedance Ratio: Reference Cut-Points From the United States National Health and Nutrition Examination Survey 1999-2004 From Bioimpedance Spectroscopy Data. *JPEN. Journal of Parenteral and Enteral Nutrition, 41*(8), 1310-1315. doi: 10.1177/0148607116670378

109. Fu, S. S., Rothman, A. J., **Vock, D. M.**, Lindgren, B., Almirall, D., Begnaud, A., . . . Joseph, A. M. (2017). Program for lung cancer screening and tobacco cessation: Study protocol of a sequential, multiple assignment, randomized trial. *Contemporary Clinical Trials, 60*, 86-95. PubMed Central ID Number: PMC5558455 doi: 10.1016/j.cct.2017.07.002

110. Serrano, O. K., Bangdiwala, A. S., **Vock, D. M.**, Chinnakotla, S., Dunn, T. B., Finger, E. B., . . . Chavers, B. M. (2017). Post-Transplant Malignancy after Pediatric Kidney Transplantation: Retrospective Analysis of Incidence and Risk Factors in 884 Patients Receiving Transplants Between 1963 and 2015 at the University of Minnesota. *Journal of the American College of Surgeons, 225*(2), 181-193. doi: 10.1016/j.jamcollsurg.2017.04.012

111. MICCAI/M.D. Anderson Cancer Center Head and Neck Quantitative Imaging Working

Group, Elhalawani, H., Mohamed, A. S. R., White A. L., Zafereo, J., Wong, A. J., Berends, J. E., AboHashem, S., Williams, B., Aymard, J., Kanwar, A., Perni, S., Rock, C. D., Cooksey, L., Campbell, S., Ding, Y., Lai, S. Y., Marai, G. E., **Vock, D**., Canahuate, G. M., Freymann, J., Farahani, K., Kalpathy-Cramer, J., & Fuller, C.D. (2017). Matched computed tomography segmentation and demographic data for oropharyngeal cancer radiomics challenges. *Sci Data*. Jul 4;4:170077. doi: 10.1038/sdata.2017.77. PMID: 28675381; PMCID: PMC5497772.

112. Serrano, O. K., Bangdiwala, A. S., **Vock, D. M.**, Berglund, D., Dunn, T. B., Finger, E. B., . . . Kandaswamy, R. (2017). Defining the Tipping Point in Surgical Performance for Laparoscopic Donor Nephrectomy Among Transplant Surgery Fellows: A Risk-Adjusted Cumulative Summation Learning Curve Analysis. *American Journal of Transplantation, 17*(7), 1868-1878. doi: 10.1111/ajt.14187

113. Peterson, R. L., **Vock, D. M.**, Powers, J. H., Emery, S., Cruz, E. F., Hunsberger, S., . . . Neaton, J. D. (2017). Analysis of an ordinal endpoint for use in evaluating treatments for severe influenza requiring hospitalization. *Clinical Trials, 14*(3), 264-276. PubMed Central ID Number: PMC5528156 doi: 10.1177/1740774517697919

114. Wolfson, J., **Vock, D. M.**, Bandyopadhyay, S., Kottke, T., Vazquez-Benitez, G., Johnson, P., . . . O'Connor, P. J. (2017). Use and Customization of Risk Scores for Predicting Cardiovascular Events Using Electronic Health Record Data. *Journal of the American Heart Association, 6*(4). PubMed Central ID Number: PMC5532984 doi: 10.1161/JAHA.116.003670

115. Multidisciplinary Larynx Cancer Working Group, Sheu, T., **Vock, D. M.**, Mohamed, A., Gross, N., Mulcahy, C., Zafereo, M., Gunn, G., Sevak, P., Phan, J., Lewin, J., Frank, S., Beadle, B., Morrison, W., Lai, S., Hutcheson, K., Marai, G. E., Canahuate, G., Kies, M., El-Naggar, A., Weber, R., Rosenthal, D., & Fuller, C. D. (2017). Conditional Survival Analysis of Patients With Locally Advanced Laryngeal Cancer: Construction of a Dynamic Risk Model and Clinical Nomogram. *Sci Rep*. Mar 9;7:43928. doi: 10.1038/srep43928. PMID: 28276466; PMCID: PMC5343446.

116. **Vock, D. M.**, Durheim, M. T., Tsuang, W. M., Finlen Copeland, C. A., Tsiatis, A. A., Davidian, M., . . . Palmer, S. M. (2017). Survival Benefit of Lung Transplantation in the Modern Era of Lung Allocation. *Annals of the American Thoracic Society, 14*(2), 172-181. PubMed Central ID Number: PMC5427730 doi: 10.1513/AnnalsATS.201606-507OC

117. Li, D., Thomas, R., Tsai, M. Y., Li, L., **Vock, D. M.**, Greimel, S., & Yu, F. (2016). Vascular biomarkers to predict response to exercise in Alzheimer's disease: the study protocol. *BMJ Open, 6*(12), e011054. PubMed Central ID Number: PMC5223628 doi: 10.1136/bmjopen-2016-011054

118. Wey, A., **Vock, D. M.**, Connett, J., & Rudser, K. (2016). Estimating restricted mean treatment effects with stacked survival models. *Statistics in Medicine, 35*(19), 3319-32. PubMed Central ID Number: PMC4938776 doi: 10.1002/sim.6929

119. Denardo, S. J., **Vock, D. M.**, Schmalfuss, C. M., Young, G. D., Tcheng, J. E., & O'Connor, C. M. (2016). Baseline Hemodynamics and Response to Contrast Media During Diagnostic Cardiac Catheterization Predict Adverse Events in Heart Failure Patients. *Circulation. Heart Failure, 9*(7). doi: 10.1161/CIRCHEARTFAILURE.115.002529

120. **Vock, D. M.**, Wolfson, J., Bandyopadhyay, S., Adomavicius, G., Johnson, P. E., Vazquez-Benitez, G., & O'Connor, P. J. (2016). Adapting machine learning techniques to censored time-to-event health record data: A general-purpose approach using inverse probability of censoring weighting. *Journal of Biomedical Informatics, 61*, 119-31. PubMed Central ID Number: PMC4893987 doi: 10.1016/j.jbi.2016.03.009

121. Serrano, O. K., Kirchner, V., Bangdiwala, A., **Vock, D. M.**, Dunn, T. B., Finger, E. B., . . . Kandaswamy, R. (2016). Evolution of Living Donor Nephrectomy at a Single Center: Long-term Outcomes With 4 Different Techniques in Greater Than 4000 Donors Over 50 Years. *Transplantation, 100*(6), 1299-305. doi: 10.1097/TP.0000000000001251

122. Sidebottom, A. C., Sillah, A., Miedema, M. D., **Vock, D. M.**, Pereira, R., Benson, G., . . . VanWormer, J. J. (2016). Changes in cardiovascular risk factors after 5 years of implementation of a population-based program to reduce cardiovascular disease: The Heart of New Ulm Project. *American Heart Journal, 175*, 66-76. doi: 10.1016/j.ahj.2016.02.006

123. Burns, R. J., Rothman, A. J., Fu, S. S., Lindgren, B., **Vock, D. M.**, & Joseph, A. M. (2016). Longitudinal Care Improves Cessation in Smokers Who Do Not Initially Respond to Treatment by Increasing Cessation Self-Efficacy, Satisfaction, and Readiness to Quit: A Mediated Moderation Analysis. *Annals of Behavioral Medicine: A Publication of the Society of Behavioral Medicine, 50*(1), 58-69. PubMed Central ID Number: PMC4744132 doi: 10.1007/s12160-015-9732-1

124. Blaes, A. H., Rehman, A., **Vock, D. M.**, Luo, X., Menge, M., Yee, D., . . . Duprez, D. (2015). Utility of high-sensitivity cardiac troponin T in patients receiving anthracycline chemotherapy. *Vascular Health and Risk Management, 11*, 591-4. PubMed Central ID Number: PMC4664531 doi: 10.2147/VHRM.S89842

125. Wolfson, J., Bandyopadhyay, S., Elidrisi, M., Vazquez-Benitez, G., **Vock, D. M.**, Musgrove, D., . . . O'Connor, P. J. (2015). A Naive Bayes machine learning approach to risk prediction using censored, time-to-event data. *Statistics in Medicine, 34*(21), 2941-57. PubMed Central ID Number: PMC4523419 doi: 10.1002/sim.6526

126. Nemoto, N., Lesser, J. R., Pedersen, W. R., Sorajja, P., Spinner, E., Garberich, R. F., . . . Schwartz, R. S. (2015). Pathogenic structural heart changes in early tricuspid regurgitation. *The Journal of Thoracic and Cardiovascular Surgery, 150*(2), 323-30. doi: 10.1016/j.jtcvs.2015.05.009

127. Bandyopadhyay, S., Wolfson, J., **Vock, D. M.**, Vazquez-Benitez, G., Adomavicius, G., Elidrisi, M., Johnson, P. E., & O'Connor, P. J. (2015). Data Mining for Censored Time-to-Event Data: A Bayesian Network Model for Predicting Cardiovascular Risk from Electronic Health Record Data. *Data Min Knowl Discov*. Jul 8;*29*(4):1033-1069. https://doi.org/10.1007/s10618-014-0386-6

128. Yu, F., Demorest, S. L., & **Vock, D. M.** (2015). Testing a modified perceived exertion scale for Alzheimer's disease. *PsyCh journal, 4*(1), 38-46. doi: 10.1002/pchj.82

129. Yu, F., Bronas, U. G., Konety, S., Nelson, N. W., Dysken, M., Jack, C. Jr, Wyman, J. F., **Vock, D.**, & Smith, G. (2014). Effects of aerobic exercise on cognition and hippocampal volume in Alzheimer's disease: study protocol of a randomized controlled trial (The FIT-AD trial). *Trials*. Oct 11;15:394. doi: 10.1186/1745-6215-15-394. PMID: 25304364; PMCID: PMC4283145.

130. Kramer, J. M., **Vock, D. M.**, Greenberg, H., Janning, C., Szczech, L., Salgo, M., . . . Ellenberg, S. Impact on investigators of expedited safety reports from sponsors. *Therapeutic Innovation and Regulatory Science 48(4),* 413-419. doi: 10.1177/2168479013520160.

131. **Vock DM**, Davidian M, Tsiatis AA. SNP_NLMM: A SAS Macro to Implement a Flexible Random Effects Density for Generalized Linear and Nonlinear Mixed Models. J Stat Softw. 2014 Jan 1;56:2. doi: 10.18637/jss.v056.c02. PMID: 24688453; PMCID: PMC3969790.

132. **Vock, D. M.**, Tsiatis, A. A., Davidian, M., Laber, E. B., Tsuang, W. M., Finlen Copeland, C. A., & Palmer, S. M. (2013). Assessing the causal effect of organ transplantation on the

distribution of residual lifetime. *Biometrics, 69*(4), 820-9. PubMed Central ID Number: PMC3865173 doi: 10.1111/biom.12084

133. Clark, P. J., Aghemo, A., Degasperi, E., Galmozzi, E., Urban, T. J., **Vock, D. M.**, . . . Colombo, M. (2013). Inosine triphosphatase deficiency helps predict anaemia, anaemia management and response in chronic hepatitis C therapy. *Journal of Viral Hepatitis, 20*(12), 858-66. doi: 10.1111/jvh.12113

134. Denardo, S. J., Carpinone, P. L., **Vock, D. M.**, Tcheng, J. E., Phillips, 3rd, H. R., Willenberg, B. J., . . . Pepine, C. J. (2013). Detailed analysis of polymer response to delivery balloon expansion of drug-eluting stents versus bare metal stents. *EuroIntervention : journal of EuroPCR in collaboration with the Working Group on Interventional Cardiology of the European Society of Cardiology, 9*(3), 389-97. doi: 10.4244/EIJV9I3A62

135. Tsuang, W. M.^, **Vock, D. M.^**, Copeland CAF, Lederer, D. J., & Palmer, S. M. (2013). An acute change in lung allocation score and survival after lung transplantation: a cohort study. *Annals of Internal Medicine, 158*(9), 650-7. PubMed Central ID Number: PMC3819715 doi: 10.7326/0003-4819-158-9-201305070-00004

136. Finlen Copeland, C. A., **Vock, D. M.**, Pieper, K., Mark, D. B., Palmer, S. M. (2013). Impact of lung transplantation on recipient quality of life: a serial, prospective, multicenter analysis through the first posttransplant year. *Chest*. Mar;*143*(3):744-750. doi: 10.1378/chest.12-0971. PMID: 23188377; PMCID: PMC3747721.

137. Clark, P. J., Thompson, A. J., Zhu, Q., **Vock, D. M.**, Zhu, M., Patel, K., . . . Muir, A. J. (2012). The association of genetic variants with hepatic steatosis in patients with genotype 1 chronic hepatitis C infection. *Digestive Diseases and Sciences, 57*(8), 2213-21. PubMed Central ID Number: PMC3518927 doi: 10.1007/s10620-012-2171-y

138. Clark, P. J., Thompson, A. J., **Vock, D. M.**, Kratz, L. E., Tolun, A. A., Muir, A. J., . . . Patel, K. (2012). Hepatitis C virus selectively perturbs the distal cholesterol synthesis pathway in a genotype-specific manner. *Hepatology, 56*(1), 49-56. doi: 10.1002/hep.25631

139. Denardo, S. J., Carpinone, P. L., **Vock, D. M.**, Batich, C. D., Pepine, C. J. (2012). Changes to polymer surface of drug-eluting stents during balloon expansion. *JAMA*. May 23;*307*(20):2148-50. doi: 10.1001/jama.2012.4111. PMID: 22618916; PMCID: PMC5729905.

140. Clark, P. J., Thompson, A. J., Zhu, M., **Vock, D. M.**, Zhu, Q., Ge, D., . . . Muir, A. J. (2012). Interleukin 28B polymorphisms are the only common genetic variants associated with low-density lipoprotein cholesterol (LDL-C) in genotype-1 chronic hepatitis C and determine the association between LDL-C and treatment response. *Journal of Viral Hepatitis, 19*(5), 332-40. PubMed Central ID Number: PMC3518930 doi: 10.1111/j.1365-2893.2011.01553.x

141. **Vock, D. M.**, Davidian, M., Tsiatis, A. A., & Muir, A. J. (2012). Mixed model analysis of censored longitudinal data with flexible random-effects density. *Biostatistics, 13*(1), 61-73. PubMed Central ID Number: PMC3276268 doi: 10.1093/biostatistics/kxr026

142. **Vock, D. M.**, Atchison, E. A., Legler, J. M., McClure, D. R., Carlyle, J. C., Jeavons, E. N., & Burton, A. H. (2011). Accounting for model uncertainty in estimating global burden of disease. *Bulletin of the World Health Organization, 89*(2), 112-20. PubMed Central ID Number: PMC3040372 doi: 10.2471/BLT.09.073577

143. Thompson, A. J., Muir, A. J., Sulkowski, M. S., Ge, D., Fellay, J., Shianna, K. V., Urban, T., Afdhal, N. H., Jacobson, I. M., Esteban, R., Poordad, F., Lawitz, E. J., McCone, J., Shiffman, M. L., Galler, G. W., Lee, W. M., Reindollar, R., King, J. W., Kwo, P. Y., Ghalib, R. H., Freilich, B., Nyberg, L. M., Zeuzem, S., Poynard, T., **Vock, D. M.**, Pieper, K. S., Patel, K., Tillmann, H. L., Noviello, S., Koury, K., Pedicone, L. D., Brass, C. A., Albrecht, J. K.,

Goldstein, D. B., & McHutchison, J. G. (2010). Interleukin-28B polymorphism improves viral kinetics and is the strongest pretreatment predictor of sustained virologic response in genotype 1 hepatitis C virus. Gastroenterology. Jul;*139*(1):120-9.e18. doi: 10.1053/j.gastro.2010.04.013. Epub 2010 Apr 24. PMID: 20399780.

Book Chapter

1. **Vock, D. M.**, Almirall, D. A. (2018) Sequential Multiple Assignment Randomized Trials (SMART). In Wiley StatsRef: Statistics Reference Online. Balakrishnan N, Brandimarte P, Davidian M, Everitt B, Molenberghs G, Ruggeri F, Piegorsch W, editors. Wiley; New York (In press).
2. **Vock, D. M.** (2013). Challenges of Observational Designs. Lopes, R. D., & Harrington, R. A. (Eds.), *Understanding Clinical Research* 179-188. New York: McGraw-Hill.

Letter, Comment

1. Mannon, R. B., Khush, K. K., Mohan, S., **Vock, D. M.**, Knight, R., Pittman, J., . . . Orlowski, J. P. (2022). *Data carve out in the midst of the COVID-19 pandemic.* 12th ed., vol. 22, 3178-3179. *American Journal of Transplantation: The Official Journal of the American Society of Transplantation and the American Society of Transplant Surgeons.* PubMed Central ID Number: PMC9350368 doi: 10.1111/ajt.17132
2. Vinson, A. J., Singh, S., Chadban, S., Cherney, D., Gaber, O., Gill, J. S., Helgeson, E., Herzog, C. A., Jardine, M., Vivekanand, K., Bertram, L., Mannon, R. B., Michos, E. D., Mottl, A. K., Newby, K., Roy-Chaudhury, P., Sawinski, D., Sharif, A., Sridhar, V. S., Tuttle, K. R., **Vock, D. M.,** & Matas, A. (2022). Premature Death in Kidney Transplant Recipients: The Time for Trials is Now. *Journal of the American Society of Nephrology, 33*(4), 665-673. PubMed Central ID Number: PMC8970447 doi: 10.1681/ASN.2021111517
   Role: Substantial contributions to the design and analysis plan, interpretation of the results, and reviewing of the manuscript for important intellectual content.
3. Matas, A. J., Ibrahim, H. N., & **Vock, D. M.** (2020). End-stage Renal Disease After Kidney Donation-More Research Needed. *JAMA Surgery, 155*(3), e195473. doi: 10.1001/jamasurg.2019.5473
   Role: Substantial contributions to the design and analysis plan, interpretation of the results, and reviewing of the manuscript for important intellectual content.

Software Development

1. *tehtuner: Fit and Tune Models to Detect Treatment Effect Heterogeneity*
   Wolf, J. M., **Vock, D. M.**, Koopmeiners, J. S. (2023)
   Implements methods to fit Virtual Twins models (Foster et al. (2011)) for identifying subgroups with differential effects in the context of clinical trials while controlling the probability of falsely detecting a differential effect when the conditional average treatment effect is uniform across the study population using parameter selection methods proposed in Wolf et al. (2022) <doi:10.1177/17407745221095855>.
   Available from: https://cran.r-project.org/web/packages/tehtuner/index.html

2. *borrowr: Estimate Causal Effects with Borrowing Between Data Sources*
   Boatman, J. A., **Vock, D. M.**, Koopmeiners, J. S. (2020)
   Estimate population average treatment effects from a primary data source with borrowing from supplemental sources. Causal estimation is done with either a Bayesian linear model or with Bayesian additive regression trees (BART) to adjust for confounding. Borrowing is done with

multisource exchangeability models (MEMs).
Available from: https://cran.r-project.org/web/packages/borrowr/index.html

3. *Modified-WQS: Penalized weighted sum regression for chemical mixtures*
Lyden, G. R., **Vock, D. M**. (2020)
Fits a modified form of Weighted Quantile Sum regression that does not require data to be split into training and test sets for weight estimation and inference. This method was introduced in "A permutation-based approach to inference for weighted sum regression with correlated chemical mixtures" by Lyden, et al.
Available from: https://github.com/glyden/Modified-WQS

4. *BeneficialITR*
Cain C, **Vock, D. M**., Murray, T. A. (2020)
Functions to calculate the power to identify a beneficial Individual Treatment Regime.
Available from: https://github.com/charlescain/BeneficialITR

5. *UNPaC: Non-Parametric Cluster Significance Testing with Reference to a Unimodal Null Distribution*
Helgeson, E. S., **Vock, D. M.**, (2021)
Assess the significance of identified clusters and estimates the true number of clusters by comparing the explained variation due to the clustering from the original data to that produced by clustering a unimodal reference distribution which preserves the covariance structure in the data. The reference distribution is generated using kernel density estimation and a Gaussian copula framework. A dimension reduction strategy and sparse covariance estimation optimize this method for the high-dimensional, low-sample size setting. This method is described in Helgeson, Vock, and Bair (2021) <doi:10.1111/biom.13376>.
Available from: https://cran.r-project.org/web/packages/UNPaC/index.html

6. *SSCE* (Spike and Slab Causal Estimator) and *BSSCE* (Bilevel Spike and Slab Causal Estimator)
Koch, B., **Vock, D. M.**, Wolfson, J., Boehm Vock, L. F. (2018)
R functions for estimating causal effects that simultaneously consider models for both outcome and treatment using a Bayesian formulation with spike and slab priors on each covariate coefficient.
Available from: https://github.com/drbkoch/SSCE

7. *percentile-nri*
McKearnan S. B., **Vock, D. M.**, Wolfson, J. (2017)
Implementation of percentile-based NRI to compare discrimination of two models.
Available from: https://github.com/smckearnan/percentile-nri

8. *A-CURE* (Augmented Compliance Unsure Reweighted Estimator)
Boatman, J. A., **Vock, D. M.**, Koopmeiners, J. S. (2018)
An R function to estimate the causal effect of an intervention/treatment when compliance is measured with error using an augmented inverse probability of compliance weighted framework.
Available from: https://github.com/jeffrey-boatman/efficiency-robustness

9. *GLiDeR* (Group Lasso, Doubly Robust)
Koch, B., **Vock, D. M.**, Wolfson, J. (2018)
An R function which implements a variable selection technique for identifying confounders

and predictors of outcome using an adaptive group lasso approach that simultaneously performs coefficient selection, regularization, and estimation across the treatment and outcome models. The selected variables and corresponding coefficient estimates are used in a standard doubly robust ACE estimator.
Available from:
https://onlinelibrary.wiley.com/action/downloadSupplement?doi=10.1111%2Fbiom.12736&file=biom12736-sup-0002-SuppDataCode.zip

10. *CURE* (Compliance Unsure Reweighted Estimator)
Boatman, J. A., **Vock, D. M.**, Koopmeiners, J. S. (2017)
An R function to estimate the causal effect of an intervention/treatment when compliance is measured with error using an inverse probability of compliance weighted framework.
Available from: https://github.com/jeffrey-boatman/cure-estimator

11. *.SNP_NLMM (Semi-NonParametric random effects for Nonlinear Mixed Effects Models)*
Vock, D. M., Davidian, M., Tsiatis, A. A. (2013)
A SAS macro to implement a flexible random effects density for generalized linear and nonlinear mixed models.
Available from https://www.jstatsoft.org/article/view/v056c02/0

Invited Presentations, Posters, and Exhibits

Underline - indicates student presenter

Presentation/Talk

1. **Vock, D. M.** "Challenges in Implementing Novel Intervention Science Designs, "University of Minnesota CTSI Workshop. (November 2023).
2. **Vock, D. M.** "Example SMART: M-Bridge Adaptive Preventive Intervention," Society for Prevention Research Post-Conference Workshop on Adaptive Interventions. (July 2023).
3. **Vock, D. M.** "How Thinking in Terms of Target Trial Emulation and Dynamic Treatment Regimes Can Lead to Better Observational Studies in Transplantation," University of Minnesota Transplant Conference. (April 2023).
4. **Vock, D. M.** "Lessons Learned from ACTIV: Setting up a Successful Platform Trial for Antibacterial Agents," Drug Information Association Global Forum. (June 2022).
5. **Vock, D. M.** "The Benefits and Challenges of Leveraging Existing and Secondary Data for Pragmatic Research," Colorado Pragmatic Research in Health Conference. (May 2021).
6. **Vock, D. M.** "Designing Clinical Trials . . . During a Pandemic," St. Olaf College Center for Interdisciplinary Research Colloquium. (April 2021).
7. **Vock, D. M.** "Getting SMART about Innovation in Care Delivery and Trials," Healthy Futures Summit. (December 2019).
8. **Vock, D. M.** "Propensity Score Matching Methods for Causal Inference in Observational Studies of Transplantation," University of Minnesota Transplant Conference. (October 2019).
9. **Vock, D. M.** "Getting SMART about Developing Adaptive Intervention Strategies," University of Minnesota Department of Medicine Clinical Research Retreat. (October 2019).
10. **Vock, D. M.** "Statistical Methods for Regulatory Tobacco Research," University of North Carolina Department of Biostatistics Seminar (September 2019).

11. **Vock, D. M.**, Koch, B., Wolfson, J. "Variable Selection and Estimation in Causal Inference Using Bayesian Spike and Slab Priors," Joint Statistical Meeting, Denver, CO. (August 2019).
12. **Vock, D. M.,** Boatman, J. A. "Estimating the causal effect of treatment regimes for organ transplantation." International Chinese Statistical Association, Raleigh, NC. (June 2019).
13. **Vock, D. M.** "Getting SMART about Developing Adaptive Intervention Strategies," ACCORDS Emerging Research Designs Conference, Denver, CO. (June 2019).
14. **Vock, D. M.** "Estimating Causal Effects in Organ Transplant Studies," University of Minnesota Transplant Conference. (February 2019).
15. **Vock, D. M.** "Do Lung Transplants Save Lives?" St. Olaf College Mathematics, Statistics, and Computer Science Colloquium. (January 2019).
16. **Vock, D. M.** "Estimating Causal (Personalized) Effects within Regulatory Tobacco Randomized Controlled Trials." Statistical and Computational Challenges in Precision Medicine Conference; Institute for Mathematics and Its Applications, University of Minnesota. (November 2018).
17. **Vock, D. M.** "Do Lung Transplants Save Lives?" Macalester College. (November 2018).
18. **Vock, D. M.** "Estimating Causal Effects and Optimal Treatment Regimes from a Randomized Clinical Trial when Noncompliance Is Measured with Error," SAMSI Precision Medicine Opening Workshop. (August 2018).
19. **Vock, D. M.** "Getting SMART About Developing Adaptive Intervention Strategies," American Statistical Association Connecticut Chapter Annual Conference. (April 2018).
20. **Vock, D. M.** "Getting SMART About Developing Adaptive Intervention Strategies," University of Alabama Birmingham Nutrition and Obesity Research Center & Department of Nutrition Sciences Seminar. (March 2018).
21. **Vock, D. M.** "Estimating Individual-Level and Population-Level Causal Effects of Organ Transplantation Treatment Regimes," Innovative Statistics and Machine Learning for Precision Medicine Workshop. (September 2017).
22. **Vock, D. M.** "Adapting Trees and Other Machine Learning Techniques to Censored Time-to-Event Health Record Data," Conference on Lifetime Data Science. (May 2017).
23. **Vock, D. M.**, Boehm Vock, L. "The Promises of Electronic (mostly) Health Data.," North Carolina State University Department of Statistics 75th Anniversary Symposium. (2016).
24. **Vock, D. M.** "Power and Potential of Using Electronic Health Data in Clinical Research: Perspectives from a Statistician," Gustavus Adolphus College Mathematics, Computer Science, & Statistics Colloquium. (November 2016).
25. **Vock, D. M.** "Getting the Right Intervention to the Right Person at the Right Time: How to Further Personalize After a SMART Design," Center for Personalized Prevention Research Colloquium. (June 2016).
26. **Vock, D. M.**, Wolfson, J., Bandyopadhyay, S., Adomavicius, G., Johnson, P., Vazquez-Benitez, G., O'Connor, P. "Extending Bayesian Networks to Estimate Conditional Survival Probability Using Electronic Health Data," ENAR Spring Meeting of the International Biometric Society. (March 2015).
27. **Vock, D. M.** "Overcoming Challenges Associated with Artificial Censoring in Structural Nested Failure Time Models," ENAR Spring Meeting of the International Biometric Society. (March 2014).

28. **Vock, D. M.**, Tsiatis, A., Davidian, M., Laber, E., Tsuang, W., Finlen Copeland, C., Palmer, S. "Assessing the Effect of Organ Transplantation on the Distribution of Residual Lifetime.," Joint Statistical Meetings. (August 2013).
29. **Vock, D. M.** "Using Pseudo-Observations to Estimate Dynamic Marginal Structural Models with Right Censored Responses," Atlantic Causal Inference Conference. (May 2013).
30. **Vock, D. M.** "Do Lung Transplants Save Lives?," St. Olaf College Mathematics, Statistics, and Computer Science Research Colloquium. (April 2013).
31. **Vock, D. M.**, Tsiatis, A. A., Davidian, M., Laber, E. B., Tsuang, W. M., Finlen Copeland, C. A., Palmer, S. M., "Assessing the effect of organ transplantation on the distribution of residual lifetime," Joint Statistical Meetings, Montreal, Canada. (August 2013).
32. **Vock, D. M.,** "Using pseudo-observations to estimate dynamic marginal structural models with right censored responses," Atlantic Causal Inference Conference, Boston, Massachusetts, United States. (May 2013).
33. **Vock, D. M.**, Tsiatis, A. A., Davidian, M., Laber, E. B., Tsuang, W. M., Finlen Copeland, C. A., Palmer, S. M., "Assessing the effect of organ transplantation on the distribution of residual lifetime," Cleveland Clinic Foundation Department of Quantitative Health Sciences, Cleveland, Ohio, United States. (March 2012).
34. **Vock, D. M.** "Ibid," Duke University, Department of Biostatistics and Bioinformatics. (February 2012).
35. **Vock, D. M.** "Ibid," Johns Hopkins University, Department of Biostatistics. (February 2012).
36. **Vock, D. M.** "Ibid," National Institute of Allergy and Infectious Diseases, Biostatistics Research Branch. (February 2012).
37. **Vock, D. M.** "Ibid," Rutgers University, Department of Statistics and Biostatistics. (February 2012).
38. **Vock, D. M.** "Ibid," University of Pennsylvania, Department of Biostatistics and Epidemiology. (February 2012).
39. **Vock, D. M.** "Ibid," University of South Carolina, Department of Epidemiology and Biostatistics. (February 2012).
40. **Vock, D. M.** "Ibid," University of Wisconsin, Department of Biostatistics and Medical Informatics. (February 2012).
41. **Vock, D. M.** "Ibid," Iowa State University, Department of Statistics. (January 2012).
42. **Vock, D. M.** "Ibid," University of Minnesota, Division of Biostatistics. (January 2012).
43. **Vock, D. M.** "Ibid," University of Pittsburgh, Department of Biostatistics. (January 2012).
44. **Vock, D. M.** "Ibid," Yale University, Department of Biostatistics. (January 2012).
45. **Vock, D. M.,** "Statistical methods for correlated data in biomedical applications," Palmer Research Group Duke University School of Medicine, Durham, North Carolina, United States. (July 2010).
46. **Vock, D. M.,** "Exact confidence intervals for differences in binomial proportions," Gilead Sciences, Durham, North Carolina, United States. (July 2008).
47. **Vock, D. M.,** "The effect of school inputs on dropout rates in Minnesota school districts," Mathematics Research Colloquium St. Olaf College, Northfield, Minnesota, United States.

(October 2007).

48. **Vock, D. M.,** Boehm, L. F., Novak, N., "U.S. Farm subsidies and developing countries," Department of Economics Research Colloquium St. Olaf College, Northfield, Minnesota, United States. (April 2007).

49. **Vock, D. M.,** Atchinson, E. A., Legler, J. M., McClure, D. R., Carlyle, J. C., Jeavons, E. N., Burton, A. H., "The model dependency on the estimate of global childhood rotavirus deaths," St. Olaf Mathematics, Statistics, and Computer Science Colloquium St. Olaf College, Northfield, Minnesota, United States. (February 2007).

Contributed Presentations, Posters, and Exhibits
Underline - indicates student presenter
Note: Only the abstracts for which Dr. Vock was the presenter are listed below.

Poster

1. **Vock, D. M.**, Boatman, J., Koopmeiners, J., Donny, E. "Estimating Causal Effects from a Randomized Clinical Trial When Noncompliance Is Measured with Error," Atlantic Causal Inference Conference. (May 2017).

2. **Vock, D. M.**, Ibrahim, H., Matas, A. "Impact of Pre-Donation eGFR on Long-Term Post-Donation eGFR in Younger Living Kidney Donors," American Transplant Congress. (April 2017).

3. **Vock, D. M.**, Koch, B., Wolfson, J. "GLiDeR: Doubly Robust Estimation of Causal Treatment Effects with the Group Lasso," ENAR Spring Meeting of the International Biometric Society. (March 2016).

4. **Vock, D. M.**, Canahuate, G., Fuller, C., Marai, G. "SMART: Spatial-nonspatial Multidimensional Adaptive Radiotherapy Treatment," Big Data to Knowledge All-Hands Meeting. (November 2015).

5. **Vock, D. M.,** Tsiatis, A. A., Davidian, M., Laber, E. B., Tsuang, W. M., Finlen Copeland, C. A., Palmer, S. M., "Assessing the effect of organ transplantation on the distribution of residual lifetime," Atlantic Causal Inference Conference, Baltimore, Maryland, United States. (May 2012).

6. **Vock, D. M.,** Tsiatis, A. A., Davidian, M., Laber, E. B., Tsuang, W. M., Finlen Copeland, C. A., Palmer, S. M. "Assessing the effect of organ transplantation on the distribution of residual lifetime," ENAR Spring Meeting of the International Biometric Society ENAR, Washington DC, District of Columbia, United States. (March 2012).

Presentation/Talk

1. Helgeson, E. S., **Vock, D. M.**, Kandaswamy, R., Matas, A. J., "eGFR < 90 ml/min/m^2 in Living Donor Candidates < 30 Years Old and Long-Term Outcomes," American Transplant Congress. (June 2024).

2. **Vock, D. M.**, Lyden, G. R., "Estimating optimal DTRs with Marginal Structural Cox Models Given Expected Wait Time for Treatment," Joint Statistical Meetings. (August 2023).

3. **Vock, D. M.**, Helgeson, E. S., Matas, A. J., "Impact of Area Social Deprivation Index on Long-Term Living Kidney Donor Outcomes," American Transplant Congress. (June 2023).

4. **Vock, D. M.**, Chinnakotla, S., "Impact of Acuity Circles Model for Liver Allocation on Liver

Transplantation for Patients with Alcohol Associated Liver Disease," American Transplant Congress. (June 2023).

5. **Vock, D. M.**, Helgeson, E. S., Matas, A. J., "A Machine Learning Approach to Estimating Anticipated Waiting Time and Survival Benefit in Older Kidney Transplant Candidates," American Transplant Congress. (June 2022).
6. **Vock, D. M.**, Boatman, J. "Estimating Causal Effects of Organ Transplantation Treatment Regimes," Joint Statistical Meetings. **Topic Contributed** (August 2018).
7. **Vock, D. M.**, Matas, A. "Impact of Rapid Discontinuation of Prednisone on Kidney Transplant Outcomes in At-Risk Subpopulations: An OPTN/SRTR Analysis," American Transplant Congress. (June 2018).
8. **Vock, D. M.**, Boatman, J., Koopmeiners, J., Donny, E. "Estimating Causal Effects from a Randomized Clinical Trial When Noncompliance Is Measured with Error," Joint Statistical Meetings. (August 2017).
9. **Vock, D. M.**, Canahuate, G., Marai, G., Fuller, C. "SMART: Spatial-nonspatial Multidimensional Adaptive Radiotherapy Treatment.," Joint Statistical Meetings. **Topic Contributed** (August 2016).
10. **Vock, D. M.**, Matas, A., Payne, W., Dunn, T., Chinnakotla, S., Finger, E., Kandaswamy, R., Pruett, T. "Impact of Kidney Donor-Recipient Relationship on Development of CKD," American Transplant Congress. (June 2016).
11. **Vock, D. M.** "Mitigating the Effect of Artificial Censoring in Structural Nested Failure-Time Models," Joint Statistical Meetings. (August 2015).
12. **Vock, D. M.,** Davidian, M., Tsiatis, A. A., "Using pseudo-observations to estimate dynamic marginal structural models with right censored responses," ENAR Spring Meeting of the International Biometric Society ENAR, Orlando, Florida, United States. (March 2013).
13. **Vock, D. M.,** "A fast computational approach to implement flexible random effects densities for generalized linear and nonlinear mixed models," 7th Annual UNCG Regional Mathematics and Statistics Conference UNCG, Greensboro, North Carolina, United States. (November 2011).
14. **Vock, D. M.,** Davidian, M., Tsiatis, A. A., Muir, A. J., "Mixed model analysis of censored longitudinal data with flexible random-effects density," Joint Statistical Meeting (JSM), Miami Beach, Florida, United States. (August 2011).
15. **Vock, D. M.,** Davidian, M., Tsiatis, A. A., Muir, A. J., "A flexible random-effects distribution for censored longitudinal data," ENAR Spring Meeting of the International Biometric Society ENAR, Miami, Florida, United States. (March 2011).
16. **Vock, D. M.,** Boehm, L. F., Novak, N., "U.S. agricultural subsidies and developing countries' food self-sufficiency: A case study of rice subsidies and Costa Rica," North Central Council of Latin Americanists Conference, Eau Claire, Wisconsin, United States. (October 2007).

TEACHING

Scheduled Teaching

Biostatistical Inference: PUBH 7401: Fall 2013, Fall 2014, Fall 2015, Fall 2016, Fall 2017

Advanced Regression and Design: PUBH 7406: Spring 2016

Methods for Causal Inference: PUBH 7485: Fall 2018, Fall 2019, Fall 2020, Fall 2021, Fall 2022, Fall 2023

Culminating Experience: Biostat: PUBH 7494: Spring 2013, Spring 2014, Spring 2015, Spring 2017

Integrative Experience: Biostats: PUBH 7494: Spring 2022

Advanced Statistical Inference: PUBH 8412: Spring 2014, Spring 2015

Advanced Survival Analysis: PUBH 8462: Spring 2013

Instructional Activity

Guest Lectures

University of Minnesota School of Nursing
NURS 8121 Health Behaviors and Illness Responses
"Structural Equation Modeling" - October 2015

University of Minnesota School of Public Health
PUBH 8403 Research Skills in Biostatistics
"Understanding the Science in Collaborative Research" October 2012, 2013, 2014, & 2015
"The Anil Potti Scandal: A Technical Perspective" October 2016
"Simulation Studies & Reproducibility" September 2017, 2018, 2022, 2023
"Choosing a Dissertation Topic" September 2019, 2020, 2021

University of Minnesota School of Public Health
Summer Institute in Biostatistics (SIBS)
"Dynamic Treatment Regimes" July 2013, 2014, 2015, 2016
"Sequential Multiple Assignment Randomized Trial (SMART)" July 2017, June 2018

ADVISING AND MENTORING

Graduate Student Activities

Doctoral Dissertation Advisees
Note: Dr. Vock served on both the Doctoral Preliminary Oral Committee and Doctoral Final Committee for all dissertation advisees

Aparajita Sur, Biostatistics PhD	2023 - Present
Jack Wolf, Biostatistics PhD	2021 - Present
Chuyu Deng, Biostatistics PhD *Thesis: Innovative Methods for Treatment Effect Heterogeneity & Calibration*	2019 - 2022
Grace Lyden, Biostatistics PhD *Thesis: Policy-relevant causal effect estimators for*	2020 - 2021

heterogeneous treatments and exposures

Yuan Zhang, Biostatistics PhD 2020 - 2021
Thesis: Modifications of Q-learning to Optimize Dynamic Treatment Regimes

Charles Cain, Biostatistics PhD 2019 - 2021
Thesis: Statistical Considerations for Clinical Trials Aiming to Identify Individualized Treatment Rules

Shannon McKearnan, Biostatistics PhD 2019 - 2021
Thesis: Statistical Methods for Organ Transplant

Ross Peterson, Biostatistics PhD 2018 - 2020
Thesis: Novel Methods for the Design, Monitoring, and Analysis of Clinical Trials

Ales Kotalik, Biostatistics PhD 2018 - 2020
Thesis: Incorporation of Supplemental Data Into the Design and Analysis of Randomized Trials

Brandon Lee Koch, Biostatistics PhD 2015 - 2018
Thesis: Statistical Methods for Variable Selection in Causal Inference

John Ssenkusu, Biostatistics PhD 2017 - 2018
Thesis: Mediation analysis in longitudinal studies in the presence of measurement error and missing data

Jeffrey Verdoliva Boatman, Biostatistics PhD 2015 - 2017
Thesis: Causal Estimators for Non-Standard Scenarios: Individual Versus Population- Level Causal Effects in Transplantation Treatment Regimes, and Clinical Trials where Compliance is Measured with Error

Committee Advising

Note: This list does not include dissertation advising. Dr. Vock served on both the Doctoral Preliminary Committee for all students for which he served on their Final Committee listed below

Doctoral Final Committee: Committee Chair

Emily Faherty, Epidemiology PhD 2021 - 2022
Thesis: Estimating the contribution of N. gonorrhoeae infection to pelvic inflammatory disease and tubal factor infertility in the United States and the Infertility Belt of Africa

Bridget Griffith, Epidemiology PhD 2021
Thesis: What are the barriers and facilitators of on-time measles vaccination in Uganda?

James Normington, Biostatistics PhD 2019
Thesis: Bayesian Hierarchical Difference-in-Differences Models

Doctoral Final Committee: Committee Member

Sunayan Bandyopadhyay, Computer Science PhD 2016
Thesis: Cardiovascular risk prediction from Electronic Health Records using probabilistic graphical models

Urvashi Mulasi, Nutrition PhD 2015
Thesis: Nutritional Status, Body Composition, and Psychosocial Outcomes Among Individuals with Advanced Head and Neck Cancers: A Prospective Investigation in An Outpatient Setting

Doctoral Final Committee: Committee Reviewer

Rebecca Molinsky, Epidemiology PhD 2022 - 2023
Thesis: Investigating Infection-Related Hospitalization as a Risk Factor for Incident Heart Failure and Mortality among Heart Failure Patients

Summer Tran, Social/Admin Pharm PhD 2022 - 2023
Thesis: Impact of Concurrent Antibiotic & Corticosteroid Use on Efficacy of Immune Checkpoint Inhibitors

Ran Zhao, Epidemiology PhD 2021
Thesis: Cervical Cancer in Women with HIV in A Setting with High Smoking: Implications for Prevention

Sanhita Sengupta, Statistics PhD 2021
Thesis: Optimal Treatment Regimes Estimation with Censored Data and Related Topics

Kyle Nickodem, Educational Psychology PhD 2019 - 2020
Thesis: Use of Aggregated Covariates in Propensity Score Analysis of Clustered Data

Levi Teigen, Nutrition PhD 2018
Thesis: Implications of lean tissue measurement and nutrition status on outcomes in clinical populations at risk for malnutrition

Yu Zhou, Statistics PhD 2018
Thesis: Quantile-optimal Treatment Regimes with Censored Data

Ali Alhadab, Experimental & Clinical Pharmacology PhD 2017
Thesis: The Utility of Pharmacometrics in Drug Development and Pharmacotherapy of Antimicrobials

Adam Kuchnia, Nutrition PhD 2017
Thesis: Novel Methods to Monitor Nutrition Status and Determine Protein Needs in Clinical Populations

Rebecca Kehm, Epidemiology PhD 2017
Thesis: The role of socially patterned risk factors in childhood cancer incidence and survival

Logan Cowan, Epidemiology PhD 2017
Thesis: Infection and Cardiovascular Disease: The Atherosclerosis Risk in Communities Study

Clemma Muller, Epidemiology PhD 2015
Thesis: Stroke disparities and selection bias in an American Indian cohort: the Strong Heart and Strong Heart Stroke Studies

Abigail Johnson, Nutrition PhD 2015
Thesis: Assessment of Body Composition and Nutritional Status in Individuals with Obesity Before and in the Long-Term After Bariatric Surgery

Andrew Wey, Biostatistics PhD 2014
Thesis: Nuisance Parameter Estimation in Survival Models

Doctoral Preliminary Committee: Committee Member

Simion De, Biostatistics PhD 2024 - Present

Chloe Falke, Biostatistics PhD 2024 - Present

Eddah Mburu, Epidemiology PhD 2019 - 2021
Thesis: Incidence patterns, care continuum and impact of treatment on survival among women with breast cancer in Ghana and the United States

Kathleen Price, Nutrition PhD 2018 - 2020
Thesis: Body composition assessment and protein recommendations in clinical populations

Master's Thesis/Research Committee: Committee Chair & Project Advisor

Jessica Hellner, Biostatistics MS 2023 - 2024

Katelyn Tessier, Biostatistics MS 2017

Nora Forbes, Biostatistics MS 2017

Karin Sather, Biostatistics MS 2017

Andrew St. Martin, Biostatistics MS 2016

Zeqing Lu, Biostatistics M S 2014

Nicole Bettes, Biostatistics MS 2014

Heather Jerry, Biostatistics MS 2013

Master's Thesis/Research Committee: Committee Member

Can Zhang, Biostatistics M S 2024 - Present

Bohua Zhai, Biostatistics MS 2023 - 2024

Victor Iniguez Cherrez, Hlth Srv Rsrch/Policy/Adm MS 2023

Daniel Whitford, Biostatistics MS 2022

Anthony Johnson, Biostatistics MS 2022

Daniel Murphy, Clinical Research MS 2020 - 2021
Thesis: Predicting Risk for Acute Kidney Injury in the Outpatient Setting: a Continuous Risk Prediction Equation and Two Binary Tests for Identifying High-risk P Patients

Dillon Corrigan, Biostatistics MS 2020

Torri Simon, Biostatistics MS 2020

Sarah Kizilbash, Clinical Research MS 2019
Thesis: Trends in Kidney Transplant Outcomes in Children and Young Adults with Cystinosis

Abbey Foglesong, Nutrition MS	2019
Michael Shyne, Biostatistics MS	2018
Hui Li, Biostatistics MS	2018
Cassandra Hosfield, Nutrition MS *Thesis: Food Insecurity and Obesity: Experience from an Academic Weight Management Clinic*	2017 - 2018
Nicholas Roetker, Biostatistics MS	2017
Katherine Casty, Biostatistics MS	2017
Andrew Timmons, Biostatistics MS	2015
Camaren Sorenson, Biostatistics MS	2015
Zeqing Lu, Biostatistics M S	2014
Ashwini Venkatasubramaniam, Biostatistics MS	2014
Wen Fan, Statistics MS	2014
Craig Meyer, Biostatistics MS	2013

Master's Thesis/Research Committee: Committee Reviewer

Maxwell Leither, Clinical Research MS *Thesis: Outpatient Acute Kidney Injury Increases Risk of Mortality and Chronic Kidney*	2016 - 2017
Winston Doom, Statistics MS	2016
Ali Alhadab, Experimental & Clinical Pharmacology MS	2016

Academic Advisees

Jennifer Bleifus, Public Health Data Science MPH	2023 - Present
Mark Lamin, Biostatistics MS	2023 - Present
Can Zhang, Biostatistics MS	2022 - Present
Aidan Neher, Biostatistics PhD	2021 - Present
Losha Ndemeno-Tegomoh, Biostatistics MS	2021 - 2024
Anthony Johnson, Biostatistics MS	2021 - 2022
Boyang Lu, Biostatistics PhD	2018 - 2022
Chao Zhang, Biostatistics MS	2019 - 2021
Wenhao Cao, Biostatistics MS	2018 - 2020
Dillon Corrigan, Biostatistics MS	2018 - 2020
Torri Simon, Biostatistics MS	2018 - 2020
Michael Shyne, Biostatistics MS	2017 - 2018
Hui Li, Biostatistics MS	2017
Andrew St. Martin, Biostatistics MS	2013 - 2016
Andrew Timmons, Biostatistics MS	2013 - 2015

Laurel Ohm, Biostatistics PhD 2014 - 2015

SERVICE

Service to the Discipline/Profession/Interdisciplinary Area(s)

Advisory Boards

Analytical Methods Subcommittee, Scientific Registry for Transplant Recipients
- Member 2020-present
- Chair 2021-present

Scientific Review Committee, Scientific Registry for Transplant Recipients, Member 2021-present

Conference and Workshop Planning Committee Member

ENAR Junior Researchers Workshop Planning 2018 - 2019

Institute for Mathematics and its Application Continuation Workshop on Innovative Statistics in Precision Medicine 2018

Institute for Mathematics and its Application Workshop on Innovative Statistics and Machine Learning in Precision Medicine 2017

Center for Personalized Prevention Research Symposium 2015-2016

Data and Safety Monitoring Board Service

SAVE O2 DSMB, Chair 2024-present
Adit Ginde PI, University of Colorado

Digital mental health intervention for middle-aged and older adults with depression and/or anxiety and coexisting chronic pain DSMB, Chair 2024-present
Abby Cheng PI, Washington University

PHARMATOP DSMB, Member 2022-present
Eric Bomberg PI, University of Minnesota

FLUX Study DSMB, Chair 2020-present
Sayeed Ikramuddin PI, University of Minnesota

NASH Study DSMB, Chair 2020-present
Sayeed Ikramuddin PI, University of Minnesota

HOPE ACT DSMB, Member 2017-2022
Tim Pruett PI, University of Minnesota

Enhancing Smoking Cessation in Homeless Populations DSMB, Member 2016-2017
Kola Okuyemi PI, University of Minnesota

Effectiveness of Screening and Decolonization of S. aureus in Surgery Outpatients DSMB, Member 2015 - 2016
Susan Kline PI, University of Minnesota,

Editorial Boards

Statistical Editor, American Journal of Transplantation	2021-2024
Associate Editor, Journal of American Statistical Association	2019-2021
Statistical Editor, Journal of Thoracic and Cardiovascular Surgery	2015 - 2018
Associate Editor, International Journal of Biostatistics	2013 - 2018
Editorial Board Member, Neurosurgery	2012 - 2018

External Consulting

Allina Health Division of Applied Research, causal inference methodology and matching	2013 - 2018
Department of Behavioral Sciences and Health Education, Emory University, SMART design for tobacco cessation tools	2016

Grant Ad Hoc Review Panels

National Institutes of Health	2020
Institute of Education Sciences	2018
Department of Veterans Affairs	2015

Reviewer

Transplantation	2017 - Present
BMC Medical Research Methodology	2016 - Present
Annals of Statistics	2015 - Present
Statistics in Medicine	2015 - Present
Biostatistics	2014 - Present
Journal of Causal Inference	2014 - Present
Journal of Statistical Software	2014 - Present
Journal of the American Statistical Association: Applications and Case Studies	2014 - Present
American Journal of Epidemiology	2013 - Present
Statistical Methods in Medical Research	2013 - Present
Biometrics	2012 - Present
Communications in Statistics	2012 - Present
Epidemiologic Methods	2012 - Present
Journal of Agricultural, Biological, and Environmental Statistics	2012 - Present
Stat	2012 - Present
American Heart Journal	2010 - Present

Service to the University/College/Department

Division of Biostatistics & Health Data Science, University of Minnesota

Faculty Search Committee

Member: Associate Director, Coordinating Centers for Biometric Research Search	2022-2023
Chair: Tenure track and Contract Assistant Professor Search	2019-2020
Faculty Development Committee	
Member	2021 – Present
Chair	2022 – Present
Masters Exam Committee	
Chair	2015, 2019-2021
Member	2012-2021
Ph.D. Exam Committee	
Chair	2019-2021
Member	2012-2021
Member, Seminar Committee	2013 - 2015

School of Public Health, University of Minnesota

Member, Appointment, Promotion, and Tenure Committee	2021 - 2024
Doctoral Dissertation Fellowship Review Committee	
Member	2013-2015
Chair	2021
Judge, Research Day	2013
Coordinator, Junior Faculty Luncheon Seminars	2014 - 2015

University-Wide, University of Minnesota

Member, Biostatistics Design and Analysis Center Member	2015 - Present
Member, Masonic Cancer Center Biostatistics and Bioinformatics Shared Resource	2014 - 2016
Member, Cancer Protocol Review Committee	2014 - 2016
Reviewer, Academic Health Center CTRS Pilot Funding	2014

Department of Statistics, North Carolina State University

Chair, Student Seminar Committee	2011
President, Graduate Student Association	2009 - 2010
Vice President, Graduate Student Association	2008 - 2009
Member, Beach Trip Planning Committee	2009