Alvin G. Thomas Curriculum vitae

CONTACT Information

Washington University in St. Louis

NeuroGenomics and Informatics Center

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Interests

**Healthy Aging:** We urgently need solutions to address the significant burden of chronic diseases prevalent in late life, especially Alzheimer's Disease and Related Disorders (ADRD). My research explores disease and resilience eitologies using epidemiologic and multi-omic approaches.

**Encoded Beliefs in Epidemiologic Design:** I hope to train the next generation of public health leaders and researchers to identify and critically examine beliefs and philosophical theories encoded in epidemiologic design in order to improve public health practice.

**Patient-Centered Technology:** As an entrepeneur, I co-developed eHealth tools designed to connect, educate, and empower patients, primarily in the field of kidney disease. I hope to leverage research on resilience to produce new tools that improve health.

CURRENT POSITIONS

Postdoctoral Research Associate, Washington University in St. Louis, 2024-Present

NeuroGenomics and Informatics Center

Department of Psychiatry

Data Science Consultant, StatSnips Consulting

2018-Present

EDUCATION

# The University of North Carolina, Chapel Hill, NC

PhD, Epidemiology, August 2024

- Foci: Cardiovascular Epidemiology, Genetic Epidemiology
- Dissertation: Measurement and Plasma Proteomic Signature of Cognitive Resilience to Alzheimer's Disease and Related Disorders
- Advisers: Kari North, PhD and Gerardo M. Heiss, MD, PhD (2018-2022)
- Committee Members: Danyu Lin, PhD, Christy Avery, PhD, Priya Palta, PhD, Laura Raffield, PhD

#### The Johns Hopkins University, Baltimore, MD

MSPH, International Health, May 2016

- Focus: Global Disease Epidemiology and Control (GDEC)
- Thesis: The mLAKE Community Trial: Using mHealth to Empower CHWs to Encourage Combination HIV Prevention
- Adviser: Larry W. Chang, MD, MPH

#### Washington and Lee University, Lexington, VA

BS, Chemistry-Engineering, May 2014

- *Honors* in Engineering
- Minor in Poverty and Human Capabilities
- Thesis: Plasticity in Dissociated Neuronal Networks under Chronic Stimulation
- Adviser: Jonathan Erickson, PhD

AWARDS

#### Alzheimer's Association International Conference

• Conference Fellowship, 2025

Study of Latinos - Neurocognitive Study

• Colibri Scholar, 2025

Washington and Lee University

• Distinguished Young Alumni Award, 2024

4th Workshop on Research Definitions for Reserve and Resilience in Cognitive Aging and Dementia.

• Travel Scholarship, 2023

University of North Carolina at Chapel Hill

• Marilyn and Al Tyroler Memorial Scholarship, 2022

3rd Workshop on Research Definitions for Reserve and Resilience in Cognitive Aging and Dementia

• Travel Scholarship, 2021

American Transplant Congress 2019

• Best of Congress Poster for "Patterns Of Anti-retroviral Use Among US Liver Transplant Candidates With HIV"

American Society of Nephrology Kidney Week 2018

• Kidney STARS (Students and Residents) Travel Award

American Transplant Congress 2017

- Best of Congress Poster for "Use of Pulsatile Perfusion Modifies the Effect of Delayed Graft Function on Graft Failure"
- Poster of Distinction for "Use of Pulsatile Perfusion Modifies the Effect of Delayed Graft Function on Graft Failure"

Johns Hopkins University Bloomberg School of Public Health

• Center for Global Health Established Field Placement, 2015

Washington and Lee University

- Algernon Sydney Sullivan Award, 2014
  - Highest student honor bestowed by the University faculty to 2 recipients at graduation.
- Omicron Delta Kappa Leader of the Year, 2014
  - Highest leadership honor awarded by the ODK to a single recipient annually.
- Sigma Pi Sigma Physics Honor Society, 2013
- Johnson Opportunity Grant, 2013
  - Competitive award of \$3000 to support a summer experience.
- Evans International Grant, 2013
  - Competitive award of \$1000 to support an international summer experience.
- Avis P. Waring Scholarship, 2013
  - Competitive award of \$1500 to support a summer experience focused on community service and physics/engineering.
- Omicron Delta Kappa Leadership Honor Society, 2013
- Beta Beta Biological Honor Society, 2011
- Bonner Scholarship, 2010
  - Four-year, service-based scholarship designed to develop community service leaders.
- Johnson Scholarship, 2010-2014
  - Highly competitive, merit-based four-year full-ride scholarship.

# EXTRAMURAL FUNDING

#### NIH, National Institute on Aging (NIA)

K00AG073565 **Thomas** 9/1/2024-8/31/2028 Effort: 12 months (100%)

Genetic and Environmental Drivers of Cognitive Resilience in Aging Populations

Direct Cost: \$311,624

Primary Goals: Use high sensitivity and high-throughput proteomics to identify proteins biomarkers and biologic pathways associated with cognitive resilience to AD.

Role: Principal Investigator

#### NIH, National Institute on Aging (NIA)

F99AG073565 **Thomas** 9/1/2021-8/31/2024 Effort: 12 months (100%)

Genetic and Environmental Drivers of Cognitive Resilience in Aging Populations

Direct Cost: \$95,072

Primary Goals: Identify novel pathways to prevent or slow Alzheimer's Disease and related

dementias (ADRD) by investigating the primary drivers of cognitive resilience using a multiomic approach.

Role: Principal Investigator

# NIH, National Heart, Lung, and Blood Institute (NHLBI)

T32HL007055 Rosamond & Heiss (Co-PIs) 8/18/2018-8/17/2021 Effort: 12 months (100%) Cardiovascular Epidemiology Training Grant

Direct Cost: \$457,976

Primary Goals: Pre-doctoral training grant to develop the requiste research skills and expertise in the area of cardiovascular disease epidemiology.

in the area of cardiovascular disease epidemic

Role: Predoctoral Fellow

## Intramural Funding

## Johns Hopkins University

Masters Tuition Scholarship Thomas 9/1/2015–5/31/2016 9 months (75%)

Direct Cost: \$40,600

Description: This scholarship is awarded by the Department of International Health to students

in their second year of training.

Role: Masters Student

# Washington and Lee University

Johnson Scholarship **Thomas** 8/1/2010–5/31/2014 12 months (100%)

Direct Cost: \$282,000

Description: Winners of this highy competitive, merit-based scholarship receive four-year awards

to cover tuition, room and board to attend Washington and Lee University.

Role: Johnson Scholar

#### **Publications**

Total articles: 62; Total citations: 1900 (2025/04/24); h-index: 25; i10-index: 40

First listed author: 3; Co-first author (listed second): 4

# PEER-REVIEWED JOURNAL

ARTICLES

AG Thomas in bold; † Indicates Equal Effort; Sorted by Publication Date (Last in/First Out)

- [58] Heo G, Ali M, Oh HS, Wang E, **Thomas AG**, Song S, Timsina J, Liu M, Western D, Gong K, Chen Y, Kohlfeld P, Flynn A, Lowery J, Morris JC, Holtzman DM, Perlmutter JS, Schindler SE, Zhang B, Bennett DA, Benzinger T, Wyss-Coray T, Ibanez L, Sung YJ, Cruchaga C. Large-scale Plasma Proteomic Profiling Unveils Novel Diagnostic Biomarkers and Pathways for Alzheimer's Disease *Nature Aging*. Accepted.
- [57] **Thomas AG**, Hussain S, Klitenic SB, Sidoti CN, Waldram MM, Chang A, Motter JD, Terlizzi K, Massie AB, Schofield M, Barstow K, Bingaman A, Segev DL, Levan ML. Effectiveness of a Mobile Health System on Compliance with Two-Year Living Kidney Donor Follow-Up in the United States. *Clinical Transplantation*. 2025 Apr 1. PMID:40145946 doi:10.1111/ctr.70139
- [56] Khalifa A, Beres LK, Anok A, Mbabali I, Katabalwa C, Mulamba J, Thomas AG, Bugos E, Nakigozi G, Chang LW, Grabowski MK. Leveraging Ecological Momentary Assessment Data to Characterize Individual Mobility: Exploratory Pilot Study in Rural Uganda. JMIR Form Res. 2024 Jun 10. PMID:38857493 doi:10.2196/54207
- [55] Kaplow K, Ruck JM, Levan ML, **Thomas AG**, Stewart D, Massie AB, Sung HC, Pisano SF, Sidoti C, Segev DL, Sinacore J, Waterman AD. National Attitudes Toward Living Kidney Donation in the United States: Results of a Public Opinion Survey. *Kidney Med.* 2024 Mar. PMID:38435064 doi:10.1016/j.xkme.2023.100788
- [54] Verbesey J, Thomas AG, Waterman AD, Karhadkar S, Cassell VR, Segev DL, Hogan J, Cooper M. Unrecognized opportunities: The landscape of pediatric kidney-paired donation in the United States. *Pediatr Transplant*. 2024 Feb. PMID:38317337 doi:10.1111/petr.14657
- [53] Beres LK, Mbabali I, Anok A, Katabalwa C, Mulamba J, Thomas AG, Bugos E, Grabowski MK, Nakigozi G, Chang LW. Acceptability and feasibility of mobile phone-based ecolog-

- ical momentary assessment and intervention in Uganda: A pilot randomized controlled trial. *PLoS One.* 2022 Aug 26. PMID:36018846 doi:10.1371/journal.pone.0273228
- [52] Chang LW, Pollard R, Mbabali I, Anok A, Hutton H, Amico K, Kong X, Mulamba J, Ssekasanvu J, Long A, Thomas AG, Thomas K, Bugos E, Van Wickle K, Kennedy CE, Nalugoda F, Beres LK, Bollinger RC, Quinn TC, Serwadda D, Gray RH, Wawer MJ, Reynolds SJ, Nakigozi G. A Mixed Methods, Implementation Science Evaluation of a Community Health Worker Strategy for HIV Service Engagement in Uganda. JAIDS. 2022 May 13. PMID:37195924 doi:10.1097/QAI.0000000000003220
- [51] Fernández-Rhodes L, Graff M, Buchanan VL, Justice AE, Highland HM, Guo X, Young KL, Adhikari K, Allred N, Below JE, Bradfield J, Pereira AC, Glover L, Kim D, Lilly AG, Shrestha P, Thomas AG, Zhang X, Chen M, Chiang CWK, Pulit S, Horimoto A, Krieger JE, Guindo-Martinez M, Preuss M, Schumann C, Smit RAJ, Torres-Mejía G, Acuña-Alonzo V, Bedoya G, Bortolini MC, Canizales-Quinteros S, Gallo C, González-José R, Poletti G, Rothhammer F, Hakonarson H, Igo R, Adler SG, Nicholas SB, Iyengar SK, Gogarten SM, Isasi CR, Papnicolaou G, Stilp AM, Qi Q, Kho M, Smith JA, Langfeld C, Wagenknecht L, Mckean-Cowdin R, Gao XR, Nousome D, Conti DV, Feng Y, Allison MA, Arzumanyan Z, Buchanan TA, Chen YDI, Genter PM, Goodarzi MO, Hai Y, Hsueh W, Ipp E, Kandeel FR, Lam K, Li X, Nadler JL, Raffel LJ, Roll K, Sandow K, Tan J, Taylor KD, Xiang AH, Yao J, Audirac-Chalifour A, Romero JdJP, Hartwig F, Gorta B, Blangero J, Curran JE, Duggirala R, Lehman DE, Puppala S, Fejerman L, John EM, Aguilar-Salinas C, Burtt NP, Florez JC, García-Ortíz H, González-Villalpando C, Maria Mercader J, Orozco L, Tusié T, Blanco E, Gahagan S, Cox NJ, Hanis C, Butte NF, Cole SA, Commuzzie AG, Saroja Voruganti V, Rohde R, Wang Y, Sofer T, Ziv E, Grant SFA, Ruiz-Linares A, Rotter JI, Haiman CA, Parra EJ, Cruz M, Loos RJF, North KE. Ancestral diversity improves discovery and fine-mapping of genetic loci for anthropometric traits - the Hispanic/Latino Anthropometry Consortium. HCG Advances. 2022 Mar 11. PMID:35399580 doi:10.1016/j.xhgg.2022.100099
- [50] Sait AS, Chaing TPY, Marr KA, Massie AB, Cochran W, Shah P, Brennan DC, Thomas AG, Steinke SM, Permpalung N, Shoham S, Merlo C, Jain T, Boyarsky B, Charnaya O, Gurakar A Sharma K, Durand CM, Werbel WA, Huang CY, Ostrander D, Kim MY, Bloch EM, Tobian AAR, Garonzik-Wang J, Segev DL, Avery RK. Outcomes of SOT Recipients with COVID-19 in Different Eras of COVID-19 Therapeutics. Transplantation Direct. 2021 Dec 23. PMID:34966840 doi:10.1097/TXD.000000000000001268
- [49] Chipman V, Cooper M, Thomas AG, Ronin M, Lee B, Flechner S, Segev DL, Mandelbrot DA, Lunow-Luke T, Syed S, Hil G, Friese C, Waterman AD, Roll GR. Motivations and Outcomes of Compatible Living Donor-Recipient Pairs in Paired Exchange. American Journal of Transplantation. 2022 Jan 1. PMID:34467618 doi:10.1111/ajt.16821
- [48] Osbun N, **Thomas AG**, Cooper M, Flechner SM, Segev DL, Veale JL. The benefit to waitlist patients in a national paired kidney exchange program: Exploring characteristics of chain end living donor transplants. *American Journal of Transplantation*. 2022 Jan 1. PMID:34212501 doi:10.1111/ajt.16749
- [47] Garg N, Warnke L, Redfield RR, Miller KM, Cooper M, Roll GR, Chipman V, **Thomas AG**, Leeser D, Waterman AD, Mandelbrot DA. Discrepant Subtyping of Blood Type A2 Living Kidney Donors: Missed Opportunities in Kidney Transplantation. *Clinical Transplantation*. 2021 Oct 1. PMID:34247420 doi:10.1111/ctr.14422
- [46] Beres LK, Mbabali I, Anok A, Katabalwa C, Mulamba J, Thomas AG, Bugos E, Nakigozi G, Grabowski MK, Chang LW. Mobile Ecological Momentary Assessment and Intervention and Health Behavior Change among Adults in Rakai, Uganda: a Pilot Randomized Controlled Trial. JMIR Formative Research. 2021 July 20. PMID:34283027 doi:10.2196/22693
- [45] Chang LW, Mbabali I, Hutton H, Amico KR, Kong X, Mulamba J, Anok A, Ssekasanvu J, Long A, **Thomas AG**, Thomas K, Bugos E, Pollard R, van Wickle K, Kennedy CE,

- Serwadda D, Bollinger RC, Quinn TC, Reynolds SJ, Gray RH, Wawer MJ, Nakigozi G. Novel community health worker strategy for HIV service engagement in a hyperendemic community in Rakai, Uganda: A pragmatic, cluster-randomized trial. *PLOS Medicine*. 2021 Jan 6. PMID:33406130 doi:10.1371/journal.pmed.1003475
- [44] Lu Y, Pike JR, Selvin E, Mosley T, Palta P, Sharrett AR, Thomas AG, Loehr L, Barritt AS, Hoogeveen RC, Heiss G. Low liver enzymes and risk of dementia. The Atherosclerosis Risk in Communities (ARIC) Study. *Journal of Alzheimer's Disease*. 2021 Feb 16. PMID:33459646 doi:10.3233/JAD-201241
- [43] Levan ML, Waldram M, DiBrito SR, Thomas AG, Al Ammary F, Ottman S, Bannon J, Brennan DC, Massie AB, Scalea J, Barth RN, Segev DL, Garonzik-Wang JM. Financial Incentives versus Standard of Care to Improve Patient Compliance with Live Kidney Donor Follow-Up: Protocol for a Multi-Center, Parallel-Group Randomized Controlled Trial. BMC Nephrology. 2020 Nov 9. PMID:33167882 doi:10.1186/s12882-020-02117-9
- [42] Al Ammary F, Yu Y, Ferzola A, Motter JD, Massie AB, Yu S, Thomas AG, Crews DC, Segev DL, Muzaale AD, Henderson ML. The First Increase in Live Kidney Donation in The United States in 15 Years. American Journal of Transplantation. 2020 Dec 2. PMID:32524764 doi:10.1111/ajt.16136
- [41] Boyarsky BJ, Massie AB, Love AD, Werbel WA, Durand CM, Avery RK, Jackson KR, Kernodle AB, Thomas AG, Ronin M, Altrich M, Niles P, Trahan C, Hewlett J, Segev DL, Garonzik-Wang JM. Early experiences with COVID-19 testing in transplantation. Transplantation Direct. 2020 Jun 11. PMID:32766427 doi:10.1097/TXD.00000000000001024
- [40] Waldram MM<sup>†</sup>, Thomas AG<sup>†</sup>, Yu Yifan, Holscher CM, Nguyen AQ, Halpern SE, Ottman S, Muzaale AD, Henderson ML, Lentine KL, Al Ammary F, Brennan DC, Garonzik-Wang JM, Segev DL, Massie AB. Long-term renal function in living kidney donors with simple renal cysts: A retrospective cohort study. Clinical Transplantation. 2020 Sep 26. PMID:32399996 doi:10.1111/ctr.13905
- [39] Jackson KR†, Motter JD†, Kernodle A, Desai N, **Thomas AG**, Massie AB, Garonzik Wang JM, Segev DL. How Do Highly Sensitized Patients Get Kidney Transplants in the United States? Trends Over The Last Decade. *American Journal of Transplantation*. 2020 July 31. PMID:32065704 doi:10.1111/ajt.15825
- [38] Verbesey M, Thomas AG, Ronin M, Beaumont J, Waterman A, Segev DL, Flechner SM, Cooper M. Early Graft Losses in Paired Exchange: Early graft losses in paired kidney exchange: Experience from 10 years of the National Kidney Registry American Journal of Transplantation. 2020 Apr 25. PMID:31922651 doi:10.1111/ajt.15778
- [37] Leeser DB, Thomas AG, Shaffer AA, Veale JL, Massie AB, Cooper M, Kapur S, Turgeon N, Segev DL, Waterman AD, Flechner SM. Patient and Kidney Allograft Survival with National Kidney Paired Donation. Clinical Journal of the American Society of Nephrology. 2020 Feb 7. PMID:31992572 doi:10.2215/CJN.06660619
- [36] Massie AB, Holscher CM, Henderson ML, Fahmy L, **Thomas AG**, Al Ammary F, Getsin SN, Snyder J, Lentine KL, Garg AX, Segev DL. Association of Early Postdonation Renal Function With Subsequent Risk of End-Stage Renal Disease in Living Kidney Donors. *JAMA Surgery*. 2020 Mar 1. PMID:31968070 doi:10.1001/jamasurg.2019.5472
- [35] Haugen CE†, Thomas AG†, Chu N, Shaffer AA, Norman SP, Bingaman AW, Segev DL, McAdams-DeMarco M. Prevalence of Frailty among Kidney Transplant Candidates and Recipients in the United States: Estimates from a National Registry and Multi-center Cohort Study. American Journal of Transplantation. 2020 Mar 28. PMID:31733176 doi:10.1111/ajt.15709
- [34] **Thomas AG**, Ruck JM, Chu N, Agoons D, Shaffer AA, Haugen CE, Swenor B, Norman SP, Garonzik Wang J, Segev DL, McAdams-DeMarco M. Kidney Transplant Outcomes

- in Recipients with Visual, Hearing, Physical, and Walking Impairments: A Prospective Cohort Study. *Nephrology Dialysis Transplantation*. 2020 Jul 1. PMID:31411724 doi:10.1093/ndt/gfz164
- [33] Nassiri N, Kwan L, Bolagani A, Thomas AG, Sinacore J, Ronin M, Cooper M, Segev DL, Veale JL. The oldest and coldest shipped living donor kidneys transplanted through kidney paired donation. American Journal of Transplantation. 2020 Jan 2. PMID:31278819 doi:10.1111/ajt.15527
- [32] Koons B, Moriarty H, Kear T, Thomas AG, Henderson ML. Factors Related to International Travel for Transplantation Among U.S.-listed Kidney Transplant Candidates. Nephrology Nursing Journal. 2019 Jul 1. PMID:31490049
- [31] Eno AK, Ruck JM, Rasmussen SEVP, Waldram MM, Thomas AG, Purnell TS, Garonizk-Wang JM, Massie AB, Al Almmary F, Cooper LM, Segev DL, Levan MA, Henderson ML. Perspectives on Implementing Mobile Health Technology for Living Kidney Donor Follow-up: In-Depth Interviews with Transplant Providers. Clinical Transplantation. 2019 Aug 11. PMID:31194892 doi:10.1111/ctr.13637
- [30] Al Ammary F, Bowring MG, Massie AB, Yu S, Waldram MM, Garonzik Wang J, Thomas AG, Holscher CM, Qadi MA, Henderson ML, Wiseman A, Gralla J, Brennan DC, Segev DL, Muzaale AD. The Changing Landscape of Live Kidney Donation in the United States From 2005 to 2017. American Journal of Transplantation. 2019 Aug 27. PMID:30903733 doi:10.1111/ajt.15368
- [29] Rasmussen SEVP, Zhou S, Thomas AG, Segev DL, Nicholas LH. Transplant Community Perceptions of the Benefits and Drawbacks of Alternative Quality Metrics for Regulation. Clinical Transplantation. 2019 Apr 14. PMID:30773685 doi:10.1111/ctr.13500
- [28] Al Ammary F†, Thomas AG†, Massie AB, Muzaale AD, Shaffer AA, Koons B, Qadi MA, Crews DC, Garonzik-Wang J, Fang H, Brennan DC, Lentine KL, Segev DL, Henderson ML. The Landscape of International Living Kidney Donation in the United States. American Journal of Transplantation. 2019 June 24. PMID:30615253 doi:10.1111/ajt.15256
- [27] Ruck JM†, Henderson ML†, Eno AK, Rasmussen SEVP, DiBrito SR, Thomas AG, Li R, Singer L, Massie I, Waldram MM, Konel JM, Helfer DR, Garonzik-Wang JM, Purnell T, Mogul DB, Lentine K, Waterman AD, Segev DL. Use of Twitter in Communicating Living Solid Organ Donation Information to the Public: An Exploratory Study of Living Donors and Transplant Professionals. Clinical Transplantation. 2019 Jan 21. PMID:30421841 doi:10.1111/ctr.13447
- [26] Haugen CE, Holscher CM, Luo X, Bowring MG, Orandi BJ, Thomas AG, Garonzik Wang J, Massie AB, Philosophe B, McAdams-DeMarco M, Segev DL. Assessment of Trends in Transplantation of Liver Grafts from Older Donors and Outcomes in Recipients of Liver Grafts from Older Donors, 2003-2016. JAMA Surgery. 2019 May 1. PMID:30758494 doi:10.1001/jamasurg.2018.5568
- [25] Henderson ML, Thomas AG, Eno AK, Waldram MM, Bannon J, Massie AB, Levan MA, Segev DL, Bingaman AW. The impact of the Mkidney mHealth system on live donor follow-up compliance: Protocol for a randomized controlled trial. *Journal of Internet Medical Research Research Protocols*. 2019 Jan 15. PMID:30664485 doi:10.2196/11000
- [24] Holscher CM, Leanza J, Thomas AG, Waldram MM, Haugen CE, Jackson K, Bae S, Massie AB, Segev DL. Anxiety, Depression, and Regret of Donation in Living Kidney Donors. BMC Nephrology. 2018 Sep 4. PMID:30180815 doi:10.1186/s12882-018-1024-0
- [23] Shaffer AA, **Thomas AG**, Bowring MG, Rasmussen SEVP, Cash A, Kucirka L, Alqahtani S, Gurakar A, Sulkowski M, Cameron A, Segev DL, Durand CM. Changes in Practice and Perception of Hepatitis C and Liver Transplantation: Results of a National Survey. *Transplant Infectious Disease*. 2018 Dec 2. PMID:30144258 doi:10.1111/tid.12982

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- [21] Holscher CM, Bae S, Thomas AG, Henderson ML, Haugen CE, DiBrito SR, Muzaale AD, Garonzik-Wang JM, Massie AB, Lentine KL, Segev DL. Early Hypertension and Diabetes after Living Kidney Donation. *Transplantation*. 2019 Jun. PMID:30247449 doi:10.1097/TP.00000000000002411
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- Inflammatory Markers, and Waitlist Mortality Among Patients with End-Stage Renal Disease in a Prospective Cohort Study. *Transplantation*. 2018 Oct. PMID:29677074 doi:10.1097/TP.00000000000002213
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- [9] Haugen CE, Thomas AG, Garonzik Wang J, Massie AB, Segev DL. Minimizing Risk Associated with Older Liver Donors by Matching to Preferred Recipients: A National Registry and Validation Study. *Transplantation*. 2018 Sep. PMID:29570165 doi:10.1097/TP.0000000000002190
- [8] Durand CM<sup>†</sup>, Bowring MG<sup>†</sup>, Thomas AG, Kucirka LM, Massie AB, Cameron A, Desai NM, Sulkowski M, Segev DL. The Drug Overdose Epidemic and Deceased-Donor Transplantation in the United States: A National Registry Study. *Annals of Internal Medicine*. 2018 April 17. PMID:29710288 doi:10.7326/M17-2451
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- [6] Henderson ML<sup>†</sup>, DiBrito SR<sup>†</sup>, Thomas AG, Holscher CM, Shaffer AA, Bowring MG, Purnell TS, Massie AB, Garonzik-Wang JM, Waldram M, Lentine KL, Segev DL. Landscape of Living Multi-organ Donation in the United States: A Registry-Based Cohort Study. Transplantation. 2018 Jan 11. PMID:29952925 doi:10.1097/TP.00000000000002082
- [5] Ruck JM, Zhou S, Thomas AG, Cramm SL, Massie AB, Montgomery JR, Berger JC, Henderson ML, Segev DL. Electronic messaging and communication with living kidney donors. *Clinical Transplantation*. 2017 Dec 27. PMID:29281129 doi:10.1111/ctr.13184
- [4] Henderson ML†, Thomas AG†, Shaffer A, Massie AB, Luo X, Holscher CM, Purnell TS, Lentine K, Segev DL. The National Landscape of Living Kidney Donor Follow-up in the United States. American Journal of Transplantation. 2017 Dec 1. PMID:28510355 doi:10.1111/ajt.14356
- [3] Treat E, Chow EKH, Peipert JD, Waterman A, Kwan L, Massie AB, Thomas AG, Bowring MG, Leeser D, Flechner S, Melcher ML, Kapur S, Segev DL, Veale J. Shipping Living Donor Kidneys and Transplant Recipient Outcomes. *American Journal of Transplantation*. 2017 Nov 22. PMID:29165871 doi:10.1111/ajt.14597
- [2] Long A, Mbabali I, Hutton HE, Thomas AG, Bugos E, Mulamba J, Amico KR, Nalugoda F, Gray RH, Wawer MJ, Nakigozi G, Chang LW. Design and Implementation of a Community Health Worker HIV Treatment and Prevention Intervention in an HIV Hotspot Fishing Community in Rakai, Uganda. Journal of the International Association of Providers of AIDS Care. 2017 May 22. 5:499-505 PMID:28528560 doi:10.1177/2325957417709089
- [1] Perin J, Thomas AG, Oldja L, Ahmed S, Parvin T, Bhuyian SI, Sarker B, Biswas SK, Faruque AS, Sack RB, and George CM. Geophagy is associated with growth faltering in children in rural Bangladesh. *The Journal of Pediatrics*. 2016 Nov 30; 178:34-9. PMID:27496267 doi:10.1016/j.jpeds.2016.06.077

OTHER ARTICLES AG Thomas in bold; † Indicated Equal Effort; Sorted by Submission Date (Last In/First Out)

- [4] Turkson-Ocran R-A, Foti K, Hines AL, Kamin Mukaz D, Kim H, Martin S, Minhas A, Norby F, Ogungbe O, Razavi AC, Rooney MR, Sattler ELP, Scott J, Thomas AG, Tilves C, Wallace AS, Wang FM, Zhang M, Lutsey PL, Lancaster KJ. American Heart Association EPI|Lifestyle Scientific Sessions: 2021 Meeting Highlights. Journal of the American Heart Association. Accepted. PMID:35179039 doi:10.1161/JAHA.121.024765
- [3] Razavi A, Gingras V, Michos E, Navar AM, Brown SA, Delker E, Foti K, Harrison S,Lu Y, Nierenberg J, Scott J, Tang O, Thomas AG, Turkson-Ocran RA, Wallace A, Zhang M, Lancaster K, Lutsey P, Selvin E. American Heart Association EPI|LIFESTYLE Scientific Sessions: 2020 Meeting Highlights. Journal of the American Heart Association. 2020 Jun 16. PMID:32476542 doi:10.1161/JAHA.120.017252
- [2] Alonso A, Anderson MD, Bancks MP, Brown S, Caughey MC, Chang AR, Delker E, Foti K, Gingras V, Nanna MG, Razavi AC, Scott J, Selvin E, Tcheandjieu C, Thomas AG, Turkson-Ocran RN, Webel A, Young DR, DeBarmore BM. Highlights from the American Heart Association's EPI|Lifestyle 2019 Scientific Sessions. Journal of the American Heart Association. 2019 Jun 4. PMID:31433702 doi:10.1161/JAHA.119.012925
- [1] Contributors to the C4 Article. Current opinions in organ allocation. American Journal of Transplantation. 2018 October 10. PMID:30303603 doi:10.1111/ajt.15094

# JOURNAL ARTICLES UNDER REVIEW

- AG Thomas in bold; † Indicated Equal Effort; Sorted by Submission Date (First In/First Out)
- [1] **Thomas AG**, Wagner M, Raffield LM, Walker KA, Pike JR, Shaffer AA, Avery CL, Kucharska-Newton A, Fornage M, Bressler J, Windham BG, Gross A, Gottesman RF, North KE, Palta P. Associations of MRI-derived Cognitive Resilience with Dementia Risk and Mortality among African American and White Adults. First Submitted 8/2024.
- [2] Flechner SM, Zeiser LB, Stewart DE, Fonk JM, Cooper M, Waterman AD, Jadlowiec C, Leeser DB, Thomas AG, Segev DL, Massie AB. The Growth and Challenges of Paired Kidney Exchange: Experience from 15 years of the National Kidney Registry. First Submitted 12/2024.
- [3] Bisen SS, Ishaque T, **Thomas AG**, Waldram MM, Warren D, Bannon J, Scalea JR, Segev DL, Garonzik-Wang JM, Massie AB, Levan ML. A Multi-center Randomized Controlled Trial to Assess Financial Incentives for Compliance with Living Kidney Donor Follow-up in the United States. First Submitted 1/2024.

# Conference Talks

- AG Thomas in bold; † Indicated Equal Effort; Presentor(s) underlined; Sorted by Presentation Date (Last in/First Out)
- [15] <u>Thomas AG</u>, Palta P, North K. Circulating Plasma Proteomics of MRI-derived Cognitive Resilience: The Atherosclerosis Risk in Communities Study. In: *CHARGE Investigators Meeting*, Rotterdam, Netherlands, October 15-17, 2024.
- [14] Thomas AG, Shaffer AA, Segev DL. Kidney Paired Donation Outcomes among High PRA Kidney Recipients. In: Academic Surgical Congress, Orlando, FL, USA, February 4-6, 2020.
- [13] <u>Thomas AG</u>, Shaffer AA, Segev DL. Donor/Recipient Relationships Underestimate Kidney Paired Donation in the National Registry. In: *Academic Surgical Congress*, Orlando, FL, USA, February 4-6, 2020.
- [12] <u>Thomas AG</u>, Shaffer AA, Segev DL. Are We Underestimating the Number of Paired Kidney Exchange Transplants in the United States? Relationship Insights from the National Kidney Registry. In: *American Transplant Congress*, Boston, MA, USA, June 1-5, 2019.
- [11] Shaffer AA, <u>Thomas AG</u>, Segev DL. The National Landscape of Heart Transplant Candidates with HIV. In: *American Transplant Congress*, Boston, MA, USA, June 1-5, 2019.

- [10] Shaffer AA, Ying H, Chu N, <u>Thomas AG</u>, Haugen C, Norman S, Segev DL, McAdams-DeMarco M. Access To The Kidney Transplant Waitlist For Patients With HIV And End-stage Renal Disease. In: *American Transplant Congress*, Boston, MA, USA, June 1-5, 2019.
- [9] Thomas AG, Holscher CM, Haugen C, Jackson K, Massie AB, Segev DL, Henderson ML, Al Ammary F, Brennan D, Garonzik Wang J. Benefits of Preemptive Living Donor Kidney Transplant Vary by Cause of Kidney Disease. In: National Heart, Lung, and Blood Institute Trainee Session, Houston, TX, USA, March 6, 2019.
- [8] Thomas AG, Ruck JM, Haugen C, Shaffer AA, Ying H, Norman S, Garonzik Wang J, Segev DL, Mara McAdams-DeMarco. Kidney Transplant Outcomes in Recipients with Physical Disabilities. In: Asian Transplant Week, Bexco, Busan, South Korea, November 8-10, 2018.
- [7] <u>Thomas AG</u>, Ruck J, Shaffer A, Ying H, Norman S, Garonzik-Wang J, Segev D, McAdams-DeMarco M. Outcomes for Kidney Transplant Recipients with Hearing, Visual, Physical, and Walking Disabilities. In: *American Society of Nephrology Kidney Week*, San Diego, CA, USA, October 25-28, 2018.
- [6] Thomas AG, Ruck J, Shaffer AA, Haugen C, Ying H, Warsame F, Chu N, Carlson M, Gross A, Norman S, Segev DL, <u>McAdams-DeMarco M</u>. Cognitive Impairment and Graft Loss in Kidney Transplant Recipients. In: *International Congress of The Transplantation Society*, Madrid, Spain, June 30-July 5, 2018.
- [5] <u>Thomas AG</u>, Shaffer AA, Ying H, Norman S, Segev DL, McAdams-DeMarco M. Prevalence of Frailty among Kidney Transplant Recipients in the United States. In: *American Transplant Congress*, Seattle, WA, USA, June 2-6, 2018.
- [4] Thomas AG, Holscher C, Shaffer AA, Garonzik-Wang J, Massie AB, Segev DL, Henderson ML. Living Liver Donor Follow-Up: Fewer than Half of Centers Meet Follow-Up Requirements in the US. In: American Transplant Congress, Seattle, WA, USA, June 2-6, 2018.
- [3] <u>Thomas AG</u>, Henderson ML, Shaffer AA, Massie AB, Koons B, Lentine K, Segev DL, Al Ammary F. Landscape of Living Donor Kidney Transplantation with International Donors in the United States. In: *American Transplant Congress*, Seattle, WA, USA, June 2-6, 2018.
- [2] Ruck JM†, Thomas AG†, Shaffer AA, Haugen CE, Ying H, Warsame F, Chu N, Carlson MC, Gross AL, Norman SP, Segev DL, McAdams-DeMarco MA Cognitive Impairment and Graft Loss in Kidney Transplant Recipients. In: *Academic Surgical Congress*, Jacksonville, FL, USA, January 30 February 1, 2018.
- [1] Henderson ML†, **Thomas AG**†, Massie A, Luo X, Shaffer A, Holscher C, Segev DL. The Unfunded OPTN/UNOS Mandate of Living Kidney Donor Follow-up: Fewer than 50% of Centers in Compliance. In: *American Transplant Congress*, Chicago, IL, USA, April 29 May 3, 2017.

SELECT CONFERENCE POSTERS

- AG Thomas in bold; † Indicated Equal Effort; Presentor(s) underlined; Sorted by Presentation Date (Last in/First Out)
- [17] <u>Thomas AG</u>, Kucharska-Newton A, Wei J, Palta P, Burgard S, Meyer M, Stoner L, Tanaka H, Nadruz W, Windham BG, Wagenknecht L, Heiss G. Longitudinal Association Between Frailty and Arterial Stiffness in Community-dwelling Older Adults: The Atherosclerosis Risk in Communities Study. In: *American Heart Association Epi/Lifestyle*, Phoenix, AR, USA, March 3-6, 2020.
- [16] Thomas AG, Shaffer AA, Segev DL. Kidney Paired Donation Outcomes among High PRA Kidney Recipients. In: American Society of Transplant Surgeons, Miami, FL, USA, January 9-12, 2020.

- [15] <u>Thomas AG</u>, Ruck J, Chu N, Agoons D, Shaffer A, Haugen C, Ying H, B. Swensor S, Garonzik Wang J, Segev D, McAdams-DeMarco M. Kidney Transplant Outcomes In Recipients With Physical Impairments. In: *American Transplant Congress*, Boston, MA, USA, June 1-5, 2019.
- [14] Shaffer AA, <u>Thomas AG</u>, Segev DL. Patterns Of Anti-retroviral Use Among US Liver Transplant Candidates With HIV. In: *American Transplant Congress*, Boston, MA, USA, June 1-5, 2019.
- [13] <u>Thomas AG</u>, Holscher CM, Haugen C, Jackson K, Massie AB, Segev DL, Henderson ML, Al Ammary F, Brennan D, Garonzik Wang J. Benefits of Preemptive Living Donor Kidney Transplant Vary by Cause of Kidney Disease. In: *American Heart Association Epi/Lifestyle*, Houston, TX, USA, March 5-8, 2019.
- [12] <u>Thomas AG</u>, Ruck J, Haugen C, Shaffer A, Ying H, Norman S, Garonzik-Wang J, Segev D, McAdams-DeMarco M. Outcomes for Kidney Transplant Recipients with Hearing, Visual, Physical, and Walking Disabilities. In: *American Society of Transplant Surgeons*, Miami, FL, USA, January 10-13, 2019.
- [11] <u>Thomas AG</u>, Koons B, Shaffer A, Al Ammary F, Lentine K, McAdams-DeMarco M, Segev D, Henderson M. US-Listed Transplant Candidates that Travel Abroad for Transplant: A National Registry Study. In: *American Society of Nephrology Kidney Week*, San Diego, CA, USA, October 25-28, 2018.
- [10] Thomas AG, Ruck J, Shaffer AA, Haugen C, Ying H, Warsame F, Chu N, Carlson M, Gross A, Norman S, Segev DL, McAdams-DeMarco M. Kidney Transplant Outcomes in Recipients with Cognitive Impairment: A National Registry and Prospective Cohort Study. In: Society of Epidemiologic Research, Baltimore, MD, USA, June 19-22, 2018.
- [9] <u>Thomas AG</u>, Shaffer AA, Ying H, Norman S, Segev DL. McAdams-DeMarco M. Prevalence of Frailty among Kidney Transplant Recipients in the United States. In: *Society of Epidemiologic Research*, Baltimore, MD, USA, June 19-22, 2018.
- [8] Thomas AG, Ruck J, Shaffer AA, Haugen C, Ying H, Warsame F, Chu N, Carlson M, Gross A, Norman S, Segev DL, McAdams-DeMarco M. Cognitive Impairment and Graft Loss in Kidney Transplant Recipients. In: American Transplant Congress, Seattle, WA, USA, June 2-6, 2018.
- [7] **Thomas AG**, Shaffer AA, Ying H, Walston J, Norman SP, Segev DL, <u>McAdams-DeMarco MA</u>. National Estimates of Frailty Prevalence among Kidney Transplant Recipients in the United States. In: *International Conference on Frailty & Sarcopenia Research*, Miami Beach, FL, USA, March 1 3, 2018.
- [6] Thomas AG, Ruck J, Shaffer AA, Haugen C, Ying H, Warsame F, Chu N, Calson M, Gross A, Norman S, Segev DL, McAdams-Demarco M. Cognitive Impairment and Graft Loss in Kidney Transplant Recipients. In: American Society of Transplant Surgeons, Miami, FL, USA, January 11-14, 2018.
- [5] Thomas AG, Henderson ML, Shaffer AA, Massie AB, Segev DL, Al Ammary F. Landscape of Living Donor Kidney Transplantation with International Donors in the United States. In: American Society of Transplant Surgeons, Miami, FL, USA, January 11-14, 2018.
- [4] <u>Thomas AG</u>, Shaffer A, Massie A, Segev DL. Use of Pulsatile Perfusion Modifies the Effect of Delayed Graft Function on Graft Failure. In: *American Transplant Congress*, Chicago, IL, USA, April 29 May 3, 2017.
- [3] <u>Thomas AG</u>, Massie A, Garonzik-Wang J, Lentine K, Henderson M, Segev DL. Landscape of Multiple Donations from a Living Donor in the US. In: *American Transplant Congress*, Chicago, IL, USA, April 29 May 3, 2017.

- [2] <u>Thomas AG</u>, Henderson ML, Massie AB, Shaffer A, Luo X, Holscher CM, Segev DL. Fewer than 50% of Transplant Centers Fully Comply with OPTN Living Donor Followup Policy. In: *American Society of Transplant Surgeons*, Miami, FL, USA, January 26-29, 2017.
- [1] Erickson JE†, <u>Thomas AG</u>†, Strickland K, Barnes A. Iterative Gaussian mixture model splitting of multimodal PSTH for studying activity dependent changes in cultured network connectivity. In: *Society for Neuroscience*, San Deigo, CA, USA, November 9-13, 2013.

#### INVITED TALKS

- [1] The National Landscape of Living Kidney Donor Follow-up in the United States. In: American Society of Transplantation and American Journal of Transplantation Journal Club, Online, December 7, 2017.
- [2] Utilizing Digital Tools for Living Kidney Donor Follow-up. In: *Texas Transplant Institute* at *Methodist Hospital*, San Antonio, TX, USA, March 5, 2018.
- [3] Scientific Insights from Nine Years of the National Kidney Registry. In: Johns Hopkins University Division of Immunogentics and Transplantation Immunology, Baltimore, MD, USA, June 12, 2018.
- [4] Liberal Arts Training and a Career in Public Health. In: Washington and Lee University Johnson Week, Lexington, VA, USA, March 11, 2019.
- [5] Living a Socially Impactful Life. In: Washington and Lee University Social Impact Summit, Lexington, VA, USA, November 12, 2022.
- [6] Longitudional Measurement of Cognitive Resilience. In: *Methods for Longitudional Studies in Dementia*, Élincourt-Sainte-Marguerite, France, June 28, 2024.
- [7] Research Frameworks to Promote Healthy Aging: Insights from Frailty & Resilience. In: WashU School of Public Health, St. Louis, MO, USA, February 12, 2025.

## Inventions and Patents

- [1] mKidney. Henderson ML, **Thomas AG**, Segev DL. Johns Hopkins University Invention ID: D15296.
  - mKidney is a mobile health platform for the post-donation follow-up care management of living kidney donors. The platform includes a patient facing mobile application and a hospital facing web portal.

# TEACHING EXPERIENCE

#### UNC Chapel Hill Gillings School of Global Public Health, Chapel Hill, NC

Teaching Assistant

Fall 2020

- PUBH 741. Quantitative Methods for Health Care Professionals I
  - Graduate course in intermediate Stata programming
  - Main instructors: Kim Faurot, Vanessa Miller
  - Lectures: "From a Dirty Dataset to Table 1", Survival Analysis
  - Enrollment: 58

# Johns Hopkins University Bloomberg School of Public Health, Baltimore, MD

Guest Lecturer May 2017

- 340.600.01: Stata Programming
  - Graduate course in intermediate Stata programming
  - Main instructors: Dorry L. Segev, Allan B. Massie
  - Lecture: "From a Dirty Dataset to Table 1"
  - Enrollment: 281

## RESEARCH EXPERIENCE

# Graduate Research Assistant | University of North Carolina | 2018-2024

• Produced peer-reviewed manuscripts for research projects in the Atherosclerosis Risk in Communities (ARIC) study. Advisors: Gerardo M. Heiss, MD PhD, Kari North, PhD

# Research Data Analyst | Johns Hopkins University | 2016-2018

• Responsible for data analysis and manuscript preparation for >40 research projects in transplantation epidemiology. Managed data for an ongoing NIH-funded prospective study of living donors. Supported the development of novel eHealth technologies for kidney donors engagement and follow-up. Developed and maintained statistical software in R and Stata. Advisor: Dorry Segev, MD PhD

# Research Assistant | Rakai Health Science Program | 2015-2016

• Trained community health workers and study staff involved in the implementation of two NIH-funded studies in Rakai, Uganda. Developed the standard operating procedures for data quality and management and contributed to the development of study questionnaires and protocols. Developed analytic R scripts to regularly generate weekly study implementation reports. Assisted in the development and testing of two mHealth applications. Advisor: Larry Chang, MD MPH.

## Data Manager | Johns Hopkins University | 2016

Performed data management activities to ensure data quality using SAS, EpiInfo, and Stata
for the NSEBA Study which aims to improve detection of pediatric HIV in Zambia. Advisor:
Catherine Sutcliffe, PhD.

## Research Assistant | International Vaccine Access Center | 2014-2015

Abstracted data from >100 journal articles for a systematic review that aimed to estimate
the global burden of Haemophilus influenza type B, Streptococcus Pneumoniae, and Neisseria meningitides.

## Student Reseracher | Shepherd Poverty Program | 2013

 Analyzed data from the CDC Health, 2011 report to present longitudinal data analysis on the relationship between socioeconomic status and health status. Funded by the University Research Scholarship. Advisor: Harlan Beckley, PhD

# Biomedical Engineering Technician | Engineering World Health | 2013

 Fully repaired 20 medical devices, took full inventories of the Rubavu hospital and its ten surrounding health clinics, and conceptualized a novel medical device to perform lab equipment calibrations in resource-scarce environments.

# AMERICORPS (1895 HOURS SERVED)

#### Robotics Program Founder | Lexington City Schools | 2011-2014

 Created and ran a program that uses Lego NXT robots to introduce middle school and elementary students to robotics, computer science, and engineering design utilizing a \$2500 grant from NSF.

#### Shift Leader | Campus Kitchens Project | 2011-2014

 Addressed local hunger as a ServSafe-certified manager by supervising shifts that collected, prepared, and served over 300 meals/week.

#### **Trip Coordinator** | Volunteer Venture Program | 2011-2013

Coordinated three weeklong service trips for incoming students, which involves budget management and logistical planning.

#### Therapeutic Nursery Intern | Kennedy Krieger Institute | 2011

• Conducted play-therapy sessions with toddlers and families experiencing homelessness. Provided care for the children and assisted with an active study in child psychology.

# Patient Eligibility Intern | Rockbridge Area Health Center | 2010-2012

 Helped manage the medical database, helped eligible patients acquire free medication from pharmaceutical companies, and answered patient questions by phone.

# SOFTWARE SKILLS

#### Statistical/Numerical Analysis:

• Stata, R, SAS, MATLAB, SQL

# Computer Programming:

• Python, C++, C, Java, Bash, Zsh

#### Data Science:

- Git (GitHub/GitLab)
- Jupyter, RMarkdown, Quarto
- AWS (EC2, S3, SageMaker), Docker, Slurm
- TensorFlow, PyTorch, XGBoost, CatBoost

#### Productivity and Editing Software:

- Visual Studio Code, Atom, Xcode, RStudio
- TeX (LATeX, BibTeX)
- Microsoft Office, Google Docs, Zotero, EndNote
- Adobe Photoshop, GIMP

# Operating Systems:

• MacOS, Windows, Linux (Ubuntu, Fedora, SGE)

#### ACTIVITES

#### Journal Peer Review (ad hoc)

- Annals of Internal Medicine
- Epidemiology
- American Journal of Transplantation (AJT)
- Heart
- Journal of Internet Medical Research (JMIR)
- Alzheimer's and Dementia

#### Conference Abstract Review

• Society for Epidemiologic Research, 2018-

# Committee Membership

- President, Student and Postdoc Committee (SPC), Society for Epidemiologic Research (SER), 2024-
- President-Elect, SPC, SER, 2023-2024
- Board Member, Shepherd Advisory Board, Washington and Lee University, 2020-2023
- Standing Member, D&I Committee, SER, 2019-2022
- D&I Chair, SPC, SER, 2019-2022

#### Memberships

- Member, Sigma Xi, 2024-
- Member, Gerontological Society of America (GSA), 2021-
- Trainee Member, American Society of Human Genetics (ASHG), 2021-
- Student Member, International Society to Advance Alzheimer's Research and Treatment (ISTAART), 2020-
- Trainee Member, American Association for the Study of Liver Diseases (AASLD), 2019-
- Associate Member, Association for Academic Surgery (AAS), 2019-
- Member, American Heart Association (AHA), 2018-
- Student Member, American Society of Nephrology (ASN), 2018-
- Member, Society for Epidemiologic Research (SER), 2017-
- Member, American Society of Transplant Surgeons (ASTS), 2016-
- Student Member, Society for Neuroscience (SFN), 2013