

Research Portfolio

I have spent the last decade of my career exploring how to connect my interest in health disparities, formal training in epidemiology, and my knowledge of end-stage disease and transplantation to research related to the care of my patients. I have obtained a Master of Public Health, published 118 peer-reviewed articles (74 as first/senior author), obtained intra and extra-mural funding, elected to membership of the American Surgical Association, and invited as standing NIH study section member.

(1) Transplant Immunology: Early in my career, I studied patterns of antibody mediated rejection (AMR) and identified risk factors for the development of AMR, as well as, novel treatment strategies for this historically devastating complication of kidney transplantation. By providing evidence and outlining clinical approaches to the care of sensitized patients, this body of work has created the standard of care for the treatment of AMR and allowed for successful expansion of incompatible kidney transplantation.

Relevant Publications (selected from 23 topic specific publications):

- **Locke JE**, Zachary AA, Haas M, Melancon JK, Warren DS, Simpkins CE, Segev DL, Montgomery RA. The utility of splenectomy as rescue treatment for severe acute antibody mediated rejection. *American Journal of Transplantation*, 2007; 7(4), 842-846.
- Mustian MN, Kumar V, Stegner K, Mompoin-Williams D, Hanaway M, Deierhoi M, Young C, Orandi B, Anderson D, MacLennan PA, Reed RD, Shelton BA, Eckhoff D, **Locke JE**. Mitigating racial and gender disparities in access to living donor kidney transplantation: impact of the nation's longest single-center kidney chain. *Annals of Surgery*, 2019; 270(4): 639-646.

Relevant Funding Sources:

- NIH Ruth L. Kirschstein National Research Service Award (NRSA) 1F32 DK072593 (completed)

Additional Academic Appointments & Awards: (1) UAB-UCSD Nephrology Research and Training Center (NRTC) – Faculty; (2) B-Metro Top Women in Medicine 2017

(2) Transplantation of HIV-infected end-stage patients: I have characterized long-term outcomes among HIV-infected transplant recipients, defined appropriate immunosuppression regimen to reduce the risk of acute rejection in this at-risk population, as well as, provided evidence for the continued and routine practice of kidney transplantation among select HIV-infected ESRD patients; and in so doing, helped to shape the HIV Organ Policy Equity (HOPE) Act 2015 which amended the National Organ Transplant Act (NOTA, 1984) to legalize the procurement of organs from HIV-infected donors. My work examining center-level experience and outcomes after HIV+ kidney transplantation has further influenced national health policy by informing guidelines developed by the Secretary for HHS for HOPE Act implementation.

Relevant Publication (selected from 16 topic specific publications):

- **Locke JE**, Mehta S, Reed RD, MacLennan PA, Massie A, Nellore A, Durand C, Segev DL. A national study of outcomes among HIV-infected kidney transplant recipients. *Journal of the American Society of Nephrology*, 2015; 26(9): 2222-2229.
- Shelton BA, Sawinski D, Reed RD, MacLennan PA, Mehta S, **Locke JE**. Impact of protease inhibitor-based anti-retroviral therapy on outcomes for HIV+ kidney transplant recipients. *American Journal of Transplantation*, 2017; 17(12): 3114-3122.

Relevant Funding Sources:

- NIDDK R01 DK117675 (PI) – Genetic, environmental & histologic basis for kidney disease risk among persons living with HIV (completed; renewal scored 2%, awaiting NOGA)
- NIAID R61 AI133679 (co-PI) – Identification of drugs that induce transcriptional silencing of latent HIV-1 infection
- NIAID U01AI118594 (site co-PI) – Impact of CCR5 blockade in HIV+ kidney transplant recipients

- NIAID U01AI138897 (site PI) – HOPE in Action: A clinical trial of HIV-to-HIV liver transplant

Additional Academic Appointments & Awards: (1) UAB Center for AIDS Research (CFAR) – Associate Scientist; (2) UAB Sparkman Center for Global Health – Fellow; (3) Association for Clinical & Translational Science (ACTS) Distinguished Investigator Award: Translation into Public Benefit and Policy 2018

(3) Living Kidney Donation: I have worked with the African American community to examine barriers to living kidney donation, and have identified lack of knowledge about risks associated with donation as well as lack of knowledge regarding the donor evaluation process as the most significant predisposing factors associated with lower living donation rates among African Americans.

Relevant Publications (selected from 12 topic specific publications):

- **Locke JE**, Qu H, Shewchuk R, Mannon RB, Gaston R, Segev DL, Mannon EC, Martin MY. Identification of strategies to facilitate organ donation among African Americans using the nominal group technique. *CJASN*, 2015; 10(2): 286-93.
- **Locke JE**, Reed RD, Kumar V, Berry B, Hendricks D, Carter A, Shelton B, Mustian M, MacLennan P, Qu H, Hannon L, Yates C, Hanaway MH. Enhanced advocacy and health systems training through patient navigation increases access to living donor kidney transplantation. *Transplantation*, 2019 April 1 [Epub ahead of print].

Relevant Funding Sources:

- NIDDK K23 DK103918 (PI, mentored) – Long-term health outcomes among living kidney donors with isolated medical abnormalities
- NIDDK R01 DK113980 (PI) – CKD risk prediction among obese living kidney donors
- NIDDK R01 DK111966 (site PI) – Expanding live donor kidney transplantation through advocacy training and social media
- NIDDK R01 DK114888 (site PI) – Social network interventions to reduce race disparities in living kidney donation
- NIDDK U01DK115997 (Co-I) – APOL1 Long-term Kidney Transplantation Outcomes Network Clinical Centers (APOLLO)
- Pittman Scholar 2016 – UAB School of Medicine

Additional Academic Appointments: (1) UAB Minority Health & Health Disparities Research Center (MHRC) – Associate Scientist; (2) UAB Nutrition Obesity Research Center (NORC) – Fellow; (3) Standing Member, NIDDK Kidney, Urologic and Hematologic Diseases D Sub-Committee (DDK-D); (4) Ad Hoc Reviewer, NIDDK Kidney, Nutrition & Obesity Diseases (KNOD) Study Section

(4) Transplant Epidemiology & Analytics in Medicine (T.E.A.M.): I am the founder and director of T.E.A.M., a multidisciplinary collaboration between the School of Medicine (Transplant Surgery and Medicine), the School of Public Health (Epidemiology and Health Services), UAB CFAR, UAB MHRC, UAB NRTC, as well as, Johns Hopkins University, Vanderbilt University, The University of Pennsylvania, the Scientific Registry of Transplant Recipients (SRTR), the European Consortium, and Cape Town, South Africa. The ORC now employs 4 full-time master's level and 4 full-time PhD level biostatisticians/epidemiologists and 6 research assistants and collaborates with more than 40 investigators across UAB and in the broader national/international academic communities.

(5) External Peer Review: I am a regular peer reviewer for many high profile journals, including the *New England Journal of Medicine*, and serve as an abstract reviewer for the American Transplant Congress and World Transplant Congress. Currently, I serve as an Associate Editor for *Transplantation* and the *American Journal of Transplantation*, and sit on the editorial board of the *Annals of Surgery*. In these roles, I routinely manage 6-10 new manuscript submissions per month.