

Fadi I. Musfee

Education

University of Texas Health Science Center at Houston, School of Public Health May 2021
PhD in Public Health, Epidemiology and Genetics

University of Texas Health Science Center at Houston, School of Public Health Dec 2016
Master of Public Health, Epidemiology

University of Baghdad, College of Medicine Jul 2008
Medical Doctor

Certifications

Education commission for foreign medical graduates' certificate (ECFMG) Feb 2013

University of Texas Health Science Center at Houston, School of Public Health Aug 2015
Certificate of General Public Health, Public health

University of Texas Health Science Center at Houston, School of Public Health Dec 2018
Certificate in Genetics and biomedical informatics

Experience

Post-doctoral Fellow Jun 2021-present

University of Arkansas for Medical Sciences

Department of Epidemiology

Responsibilities: analyzing, preparing and managing datasets for multiple projects in the department of Epidemiology. Writing abstracts, manuscripts, and participating in national and international meetings.

Graduate Teacher Assistant Dec 2018-May 2021

University of Texas Health Science Center at Houston

Cizik School of Nursing

Responsibilities: answer student questions, write exam questions and grade exams for pathophysiology course for nursing students.

Graduate Research Assistant Nov 2017-May 2021

University of Texas Health Science Center at Houston
School of Public Health, Human Genome Center

Responsibilities: data management and analyses for genetic studies of congenital heart defects

Graduate Research Assistant

May 2017- Sept 2017

Responsibilities: data analysis, preparing abstracts and manuscripts for multiple research projects in occupational medicine and sleep related disorders.

Graduate Research Assistant

Dec 2015 – April 2017

Responsibilities: coding and filing of clinical trial adverse events per the investigator's protocol, and communicate with clinical site coordinators to insure accurate adverse events documentation.

Research Fellow

March 2016-Sep 2017

Baylor College of medicine

Department of Thoracic surgery

Responsibilities: Conduct retrospective epidemiological studies for multiple cardiovascular research projects. Design and create databases for data collection and analyses. Attend research committee meetings.

Orthopedics resident

Jan 2011- June 2012

Al-Karkh General Hospital

Responsibilities: Treating patients in the emergency room, operating room, and clinic for different orthopedic related injuries and diseases.

Volunteer Experiences

Texas Children's Hospital | Houston, Texas

Volunteer, June 2013 – April 2014

Provided assistance to patients during their physical therapy sessions.

George R. Brown Center | Houston, Texas

Volunteer, September 2017

Conducted survey and health assessment for residents at GRB center during hurricane Harvey.

Honors and Awards

Awards:

Outstanding New Student Scholarship

2017

University of Texas Health Science Center at Houston, School of Public Health

Travel award 2019

University of Texas Health Science Center at Houston, School of Public Health

Advanced Gene Mapping course 2020

Rockefeller University, New York City

Travel award

Birth Defects Research and Prevention meeting in Vancouver, Canada 2022

Wilson Presentation Award finalist

Birth Defects Research and Prevention meeting in Vancouver, Canada 2022

Honors:

Student Spotlight – School of Public Health Newsletter 2019

University of Texas Health Science Center at Houston, School of Public Health

Delta Omega society of Public Health 2021

Early stage investigator participant in the NRMN SETH 2022

(Strategic Empowerment Tailored for Health Equity Investigators) Research Study

Publications

A.J. Agopian, Thanh T. Hoang, Elizabeth Goldmuntz, Hakon Hakonarson, **Fadi I Musfee**, Laura E. Mitchell, and the Pediatric Cardiac Genomics Consortium. X-chromosome association studies of congenital heart defects. *Am J Med Genet A*. 2020 Jan;182(1):250-254. doi: 10.1002/ajmg.a.61411. Epub 2019 Nov 15. PMID: 31729158.

Yingjie Zhao, Alexander Diacou, H. Richard Johnston, **Fadi I. Musfee**, Donna M. McDonald-McGinn, Daniel McGinn, T. Blaine Crowley, Gabriela Repetto, Ann Swillen, Jeroen Breckpot, Joris Robert Vermeesch, Wendy Kates, M. Cristina Digilio, Marta Unolt, Bruno Marino, Maria Pontillo, Marco Armando, Fabio Di Fabio, Stefano Vicari, Marianne van den Bree, Hayley Moss, Michael Owen, Kieran C. Murphy, Clodagh Murphy, Declan Murphy, Kelly Schoch, Vandana Shashi, Flora Tassone, Tony J. Simon, Robert J. Shprintzen, Linda Campbell, Nicole Philip, Damian Heine-Suñer, Sixto García-Miñaur, Luis Fernández García-Moya, International 22q11.2 Brain and Behavior Consortium, Carrie E. Bearden, Claudia Vingerhoets, Therese van Amelsvoort, Stephan Eliez, Maude Schneider, Jacob Vorstman, Doron Gothelf, Elaine Zackai,

A.J Agopian, Raquel E. Gur, Anne S. Bassett, Beverly S. Emanuel, Elizabeth Goldmuntz, Laura E. Mitchell, Tao Wang, Bernice E. Morrow. Complete sequence of the 22q11.2 allele in 1,053 subjects with 22q11.2 deletion syndrome reveals modifiers of conotruncal heart defects near the CRKL gene. *Am J Hum Genet.* 2020 Jan 2;106(1):26-40. doi: 10.1016/j.ajhg.2019.11.010. Epub 2019 Dec 20. PMID: 31870554.

George V Letsou, **Fadi I. Musfee**, Andrew Lee, BA, Gabriel Loor, Jeffery Morgan, Todd Rosengart, and O. H Frazier, Heterotopic Cardiac Transplantation: Long-term Results and Fate of the Native Heart. *Ann Thorac Surg.* 2020 Mar 16:S0003-4975(20)30373-8. doi: 10.1016/j.athoracsur.2020.02.018. Online ahead of print. PMID: 32194033.

Fadi I. Musfee, Dongchuan Guo, Amelie C. Pinard, Ellen M. Hostetler, Dianna M. Milewicz, Siddharth K. Prakash. Rare Deleterious Variants of NOTCH1, GATA4, SMAD6 and ROBO4 Are Enriched in BAV with Early Onset Complications but not in BAV with Heritable Thoracic Aortic Disease. *Mol Genet Genomic Med.* 2020 Aug 3:e1406. doi: 10.1002/mgg3.1406. Online ahead of print. PMID: 32748548

Anshuman Sewda, A.J. Agopian, Elizabeth Goldmuntz, Hakon Hakonarson, Bernice E. Morrow, **Fadi I. Musfee**, Deanne Taylor, Laura E. Mitchell, on behalf of the Pediatric Cardiac Genomics Consortium. Gene-based analyses of the maternal genome implicate maternal effect genes as risk factors for conotruncal heart defects. *PLoS One.* 2020 Jun 9;15(6):e0234357. doi: 10.1371/journal.pone.0234357. eCollection 2020. PMID: 32516339.

Yunping Lei, Katherine L. Ludorf, Xiao Yu, Renata H. Benjamin, Xue Gu, Ying Lin, Richard H. Finnell, Laura E. Mitchell, **Fadi I. Musfee**, Sadia Malik, Mark A. Canfield, Alanna C. Morrison, Charlotte A. Hobbs, Alissa R. Van Zutphen, Sarah Fisher, A. J. Agopian, and the National Birth Defects Prevention Study. Maternal hypertension-related genotypes and congenital heart defects. *Journal: American Journal of Hypertension, 2020. Am J Hypertens.* 2020 Jul 25:hpa116. doi: 10.1093/ajh/hpaa116. Online ahead of print. PMID: 32710738

George V. Letsou, **Fadi I. Musfee**, Andrew Lee, Faisal Cheema, Reynolds M. Delgado, and O. H. Frazier. Ten-year Survival with a Continuous-flow Left Ventricular Assist Device and Closure of the Aortic Valve. *Texas Heart Institute Journal.* PMID: 33472231

Fadi I Musfee, A J Agopian, Elizabeth Goldmuntz, Hakon Hakonarson, Bernice E Morrow, Deanne M Taylor, Martin Tristani-Firouzi, W Scott Watkins, Mark Yandell, Laura E Mitchell. Common Variation in Cytoskeletal Genes is Associated with Conotruncal Heart Defects. *Genes (Basel).* 2021 Apr 27;12(5):655. doi: 10.3390/genes12050655. PMID: 33925651

Omobola O Oluwafemi, **Fadi I Musfee**, Laura E Mitchell, Elizabeth Goldmuntz, Hongbo M Xie, Hakon Hakonarson, Bernice E Morrow, Tingwei Guo, Deanne M Taylor, Donna M McDonald-McGinn, Beverly S Emanuel, A J Agopian. Genome-Wide Association Studies of Conotruncal Heart Defects with Normally Related Great Vessels in the United States. *Genes (Basel).* 2021 Jul 1;12(7):1030. doi: 10.3390/genes12071030. PMID: 34356046

Fadi I Musfee, Omobola O Oluwafemi, A J Agopian, Hakon Hakonarson, Elizabeth Goldmuntz, Laura E Mitchell. Maternal effect genes as risk factors for congenital heart defects. HGG Adv. 2022 Mar 9;3(2):100098. doi: 10.1016/j.xhgg.2022.100098. eCollection 2022 Apr 14.

Harveen K Lamba, **Fadi I Musfee**, Subhasis Chatterjee, Ajith P Nair, Andrew B Civitello, Leo Simpson, O H Frazier, George V Letsou. The influence of preoperative dialysis on survival after continuous-flow left ventricular assist device implantation. Interact Cardiovasc Thorac Surg. 2022 Feb 21;34(3):470-477. doi: 10.1093/icvts/ivab357.

George V Letsou, **Fadi I Musfee**, Qianzi Zhang, Gabriel Loor, Andrew D Lee. Stroke and mortality rates after off-pump vs pump-assisted/no-clamp coronary artery bypass grafting. J Cardiovasc Surg (Torino). 2022 Sep 28. doi: 10.23736/S0021-9509.22.12337-2.

Dayna T. Neo, Tania A. Desrosiers, Chantel L. Martin, Suzan L. Carmichael, Muge Gucsavas-Calikoglu, Kristin M. Caspers, Shannon Pruitt Evans^h, Marcia L. Feldkamp, Suzanne M. Gilboa, Tabassum Z. Insaf, **Fadi I. Musfee**, Gary M. Shaw, Charles Shumate, Martha M. Werler, Kathy Wisniewski, Andrew F. Olshan, National Birth Defects Prevention Study. Does neighborhood-level socioeconomic position modify associations between maternal age, pre-pregnancy body mass index, and gastroschisis?. In preparation for submission to the American Journal of Epidemiology.

Dayna T. Neo, Tania A. Desrosiers, Chantel L. Martin, Suzan L. Carmichael, Muge Gucsavas-Calikoglu, Kristin M. Caspers, Shannon Pruitt Evans, Marcia L. Feldkamp, Suzanne M. Gilboa, Tabassum Z. Insaf, **Fadi I. Musfee**, Gary M. Shaw, Charles J. Shumate, Martha M. Werler, Kathy Wisniewski, Andrew F. Olshan, and the National Birth Defects Prevention Study. Neighborhood-level socioeconomic position during early pregnancy and risk of gastroschisis. Under review in Epidemiology.

Fadi I. Musfee, Goo Jun, Laura E. Mitchell, Han Chen, Dongchuan Guo, Michael J Bamshad, Megan L. Grove, Eric Boerwinkle, University of Washington Center for Mendelian Genomics (UW-CMG), Dianna M. Milewicz. X-linked Genetic Associations and Gene-Gene Interactions in Sporadic Thoracic Aortic Aneurysm and Dissection. Under review. American Journal of Medical Genetics Part A.

Presentations and Abstracts

Fadi I. Musfee. Autologous bone marrow transplantation of CRISPR edited HIV infected CD4+ cells and in-vivo lentivirus/CRISPR transduction of T-lymphocytes – a promising approach to treat HIV infection, Poster presentation, Human and Molecular Genetics 19th Annual Symposium University of Texas Graduate school of Biomedical Sciences, Houston, TX, April 2016.

Letsou GV, **Musfee FI**, Cheema F, Lee A, Loor G, Morgan J, Rosengart T, Frazier OH. Heterotopic cardiac transplantation: Time for another look The International Society for Lung and Heart Transplantation (ISHLT), Nice France, April 11-14, 2018.

Letsou GV, **Musfee FI**, Zhang Q, Loor G, Rosengart T, Lee A. Low Stroke Rate after CABG using an Off-Pump or Pump-Assisted, "No-Clamp" Technique. American Heart Association (AHA), Chicago, November, 2018.

Wang N, Ho J, **Musfee FI**, Lamba HK, Cheema FH, Taylor DA, Sampiao LC, Morgan JA, Loor G, Frazier OH, Letsou GV. Etiology of Continuous-Flow LVAD (CF-LVAD) Infections. The International Society for Lung and Heart Transplantation (ISHLT), April 2019.

Letsou GV, Wang N, Loor G, **Musfee FI**, Sampiao L, Taylor DA, Cheema F, Morgan JA, Lamba HK, Ho J, Frazier OH. Continuous Flow Left Ventricular Assist Devices Have Very Low Rates of Mechanical Failure. The International Society for Lung and Heart Transplantation (ISHLT), April 2019.

Letsou GV, Lee AD, Salaskar A, Zhang Q, Shrestha N, Suh M, **Musfee FI**. Left Ventricular Function Improves After Off-Pump or Pump-Assisted CABG Without Hypothermic Circulatory Arrest. American College of Cardiology (ACC), Chicago March, 2020.

Letsou GV, Ho JK, **Musfee FI**, Frazier OH, Wang N. Causes of Mortality in Patients Undergoing Continuous-Flow LVAD implantation. American Society for Artificial Internal Organs (ASAIIO), Chicago June, 2020.

Letsou GV, Ho JK, **Musfee FI**, Frazier OH, Wang N. Post-transplant Survival After Continuous-flow LVAD Implantation is Superior to Survival After Pulsatile-flow LVAD Implantation. American Society for Artificial Internal Organs (ASAIIO) meeting.

Letsou GV, Wang N, **Musfee FI**, Ho JK, Frazier OH. Continuous-flow LVADs are Markedly More Durable and Free From Mechanical Failure Than Pulsatile-flow LVADs. American Society for Artificial Internal Organs (ASAIIO) meeting.

Letsou G. V., **Musfee F. I.**, Ho J. K., Frazier OH.. Chances Of Prolonged 5- And 10-year Survival After Continuous-flow LVAD Implantation?. ISHLT meeting 2021.

Fadi I Musfee, Randa Hamden, Mrinalini Buddha, Hayden Naizer, Alexandra Zingg Guzman, Ganduglia Cazaban M Cecilia and George V Letsou. Gender Imbalance in Heart Failure Treatment, Use of Implantable Left Ventricular Assist Systems, and Cardiac Transplantation. Originally published 8 Nov 2021, https://doi.org/10.1161/circ.144.suppl_1.11040 Circulation. 2021;144:A11040

Fadi I Musfee, randa hamden, Mrinalini Buddha, Hayden Naizer, Alexandra Q Zingg Guzman, Cecilia M Ganduglia Cazaban and George V Letsou. Racial Balance in Heart Failure Treatment, Use of Implantable Left Ventricular Assist Devices, and Cardiac Transplantation. Originally

published 8 Nov 2021, https://doi.org/10.1161/circ.144.suppl_1.11047Circulation.
2021;144:A11047

Fadi I Musfee, Maria D. Politis, Ruiqi Cen, Everett F. Magann, Wendy N. Nembhard. Neighborhood Deprivation During Pregnancy and Risk of Stillbirths. *Birth Defects Research and Prevention*, published May, 1st, 2022, 114(8).

Fadi I Musfee, Maria D. Politis, Sean Young, Ruiqi Cen, Everett F. Magann, Wendy N. Nembhard. Place of Residence during Pregnancy and Risk of Stillbirths Among non-Hispanic Whites, non-Hispanic Blacks, and Hispanics in Arkansas, 2000-2014. *Birth Defects Research and Prevention*, published May, 1st, 2022, 114(8).

Fadi I. Musfee, Maria D. Politis, Sean G. Young, Ruiqi Cen, Everett F. Magann, and Wendy N. Nembhard. Neighborhood Deprivation During Pregnancy and Risk of Early and Late Stillbirths. Abstract and oral presentation at the 48th International Clearinghouse for Birth Defects Surveillance and Research (ICBDSR) Annual Meeting, September, 18th, 2022.

Fadi I Musfee, Goo Jun, Laura E. Mitchell, Han Chen, Dongchuan Guo, Megan L. Grove¹, Eric Boerwinkle, Dianna M. Milewicz. X-linked Genetic Associations in Sporadic Thoracic Aortic Aneurysm and Dissection. Originally published 30 Oct 2022 - *Circulation*. 2022;146:A10884.

Professional Memberships

Epidemic Intelligence Society (SEIS) – University of Texas Health Science Center at Houston.
American Medical Association.
American Society of Human Genetics.
American Heart Association.