### Mary Ashley Cain, M.D.

University of South Florida, Morsani College of Medicine, Tampa, Florida

**Address** 

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<u>Citizenship</u> United States

**Education** 

Medical SchoolMedical College of Georgia, MD, 2004-20082004-2008

**Undergraduate** Davidson College, BS Biology, 2004 2000-2004

**Postgraduate Training** 

**Fellowship** Maternal Fetal Medicine 2012-2015

University of South Florida

**Residency** Obstetrics and Gynecology 2008-2012

University of South Florida

## Awards, Honors, Honorary Society Memberships

Obstetrics and Gynecology top 10% reviewer	2019

Obstetrics and Gynecology top 10% reviewer 2015

Excellent resident teacher in Obstetrics and Gynecology, 2008-2012 University of South Florida Morsani College of Medicine.

Developmental Biology Award 2004

Medical College of Georgia School of Medicine

Beta Beta Biology Honor Society 2004

Alpha Epsilon Delta Honor Society 2004

Captain Women's Swimming and Diving Team, Davidson College, Davidson, NC	2002-2004
Varsity Swimming Letter Award Winner, Davidson College Davidson NC	2000-2004

# **Academic Appointments**

Associate Professor Division of Maternal Fetal Medicine Department of Obstetrics and Gynecology University of South Florida Morsani College of Medicine	2022- current
Assistant Professor Division of Maternal Fetal Medicine Department of Obstetrics and Gynecology University of South Florida Morsani College of Medicine	2015-2022
Clinical Instructor Department of Obstetrics and Gynecology Morsani College of Medicine University of South Florida; Tampa, FL	2013-2015

## **Teaching, Lecture**

<u>Undergraduate Medical</u> BCC 7185 Maternal-Newborn Peds Clerkship	2015-current
Graduate Medical Faculty member, Obstetrics and Gynecology Residency, USF	2015-current
Core Faculty member Maternal Fetal Medicine Fellowship, USF	2015- current
Fellowship Program Director Maternal Fetal Medicine Fellowship, USF	2020-current

#### **Innovations in Education:**

Invasive Procedures in MFM simulation modules

Multidisciplinary subspecialty OBGYN fellowship research bootcamp
Program

2019-current

Multidisciplinary subspecialty OBGYN fellowship wellness retreat

2021-current

## **Mentorship**

Emma Hale Morsani COM class of 2023-RISE mentor

Peeraya Sawangkum MD- USF OBGYN residency research mentor

Brittany Manobianco MD- USF OBGYN residency research mentor

Elizabeth Hoover MD- Postpartum follow up quality improvement mentor

Rachelle Price MD- High-Risk Postpartum clinic quality improvement mentor

Bradley Sipe MD- Treatment of Sepsis in pregnancy-quality improvement mentor

Zailing Xing - Dissertation Committee Member

Claudio Schenone, MD – USF OBGYN, Maternal-Fetal Medicine Fellowship Mentor

Viviana De Assis, DO – USF OBGYN, Maternal-Fetal Medicine Fellowship Mentor

## **Lectures by Invitation**

National "Sleep in Pregnancy" Emory University School of Medicine Obstetrics and 2021

Gynecology Grand Rounds virtual

"Sleep in Pregnancy" 2021

Brigham and Women's Perinatal Conference, virtual

"Hypertension it's not just for breakfast anymore" Cutting Edge Conference, Monmouth, New Jersey	2018
Breaking bad news simulation instructor" ACOG Obstetrical Emergencies and Catastrophes course Tampa, FL	2018
"Documentation in Obstetrics" ACOG Obstetrical emergencies and catastrophes course Tampa, FL	2016, 2017, 2018
Maternal Code simulation" ACOG Obstetrical emergencies and catastrophes course Tampa, FL	2018
"Severe Hypertriglyceridemia and Pregnancy: Implications for Care" Pregnancy as a Window to Future Health, Scientific Forum. 34th Annual Meeting of the Society for Maternal Fetal Medicine New Orleans, LA	2014
"Two Beating Hearts. The Art of Collaborative Cadio-Obstetrics Care" American College of Obstetricians and Gynecologist District IIX Annual Meeting Orlando, FL	2024 2021
"HIV in Pregnancy" American College of Obstetricians and Gynecologist District IIX Annual Meeting Virtual	2018
"Pregnancy as a Window to Future Health" Florida Academy of CNM, annual state conference	2014
"Sleep in Pregnancy" $14^{\text{th}}$ annual Conference on Obesity, Orlando, FL	2022
"Hypertension in Pregnancy- Beyond the Terrible Twos USF OBGYN Department Grand Rounds	2024
"Feedback in Graduate Education" USF OBGYN department Grand Rounds	2024
"Hypertension in Pregnancy – Choose your own adventure" USF OBGYN Department Grand Rounds	2021

Regional

Local

"Umbilical Vein Varix" Tampa General Hospital and USF quarterly ultrasound conference, Tampa FL	2020
"Where you deliver matters" Tampa General Hospital community medical education, Tampa Fl	2018
"HIV in Pregnancy" Department of Obstetrics and Gynecology Grand Rounds University of South Florida, Tampa Fl	2017
"Chest masses" Tampa General Hospital and USF quarterly ultrasound conference, Tampa FL	2016
"Pregnancy as a Window to Future Health" Tampa General Hospital community medical education, Tampa Fl	2015.2016
Pregnancy as a Window to Future Health" Department of Obstetrics and Gynecology Grand Rounds University of South Florida, Tampa FL	2014
"Maternal Wolff-Parkinson-White and Ebstein's Anomaly" Complex Obstetrical Patient Review University of South Florida, Tampa FL	2013
"Type One Diabetes and Pregnancy" Students with Diabetes National Conference, Annually Tampa, FL	2013-2015
"Investigating Neonatal Outcomes of Pregnancies Complicated by Gastroschisis and Optimal Delivery Timing" Perinatal Research Seminar, University of South Florida, Tampa FL	2013

# **Clinical Activities or Innovations**

<u>Specialty certifications</u>	
Subspecialty certification: Maternal Fetal Medicine	2015
Specialty certification: Obstetrics and Gynecology	
	2012
<u>Medical licensure</u>	
State of Florida Medical License	2012-
<u>Clinical innovation</u>	
High-risk postpartum care clinic	2019-

## **Scholarly Activity**

#### B) Past Grants

Agency: University of South Florida

I.D.# Women's Health Collaborative Seed Grant -10009 612200 Title: "A Pilot Study of postpartum weight loss in obese women using a sleep intervention in a group prenatal care setting" P.I.: Jessica Brumley

PhD, CNM

Total costs for project period: \$10,696 Project period: 03/2014-05/2016

## **Published Bibliography**

#### Peer-reviewed

**Cain MA,** Bornick P, Whiteman V. The Maternal, Fetal, and Neonatal Effects of Cocaine Exposure in Pregnancy. Clin Obstet Gynecol. 2013 Mar; 56(1):124-32.

**Cain MA**, Guidi C, Steffensen T, Whiteman VE, Gilbert-Barness E, Johnson DR. Postmortem ultrasonography of the macerated fetus complements autopsy following in utero fetal demise. Pediatr Dev Pathol. 2014 Mar 11.

**Cain MA**, Whiteman VE, Buhari MA, Louis JM. Positive Interferon-Gamma Release Assay Leading to a Diagnosis of *Mycobacterium tuberculosis* Pericarditis in Pregnancy. Obstetrics and Gynecology. 2014

**Cain, MA;** Salemi JL; Tanner, JP; Mogos, M; Kirby, RS; Whiteman, VE; Salihu, HM. Timing of delivery of a gastroschisis affected pregnancy and its impact on perinatal outcomes and hospital costs. Obstetrics and Gynecology. 2014 September

Whiteman VE, Salemi JL, Mogos M, **Cain MA**, Aliyu MH, Salihu HM. Maternal opioid drug use during pregnancy and its impact on perinatal morbidity, mortality and the costs of medical care in the United States. Journal of Pregnancy 2014;2014:906723. doi: 10.1155/2014/906723. Epub 2014 Aug 28.

Whiteman VE, Zweibel B, Amand A, **Cain MA**, Stickles X, Hoffman M. Staged management of placenta accreta in a hybrid operating room suite. Obstetrics and Gynaecology Cases-Reviews.

**Cain, MA**, Ricciuti, J, Louis JM. Sleep-disordered breathing in pregnancy and future cardiovascular disease risk. Seminars in Perinatology. 2015 Jun;39(4):304-9

Whiteman, VE; Salemi JS; Mejia De Grubb, MC; **Cain MA**; Mogos MF; Zoorob RJ; Salihu HM. The additive effects of pre-pregnancy body mass index and gestational diabetes on pregnancy outcomes and healthcare costs. Obesity. 2015 Nov;23(11):2299-308.

**Cain MA**; Ellis J; Vengrove MA; Wilcox B; Yankowitz J; Smulian JC. Gallstone and severe hyptertriglyceride-induced pancreatitis in pregnancy. Obstetrical and Gynecological Survey. 2015 70 (9) 577-83.

Mikhail, E. **Cain MA**, Shah M, Solnik MJ, Sobolewski CJ, Hart S. Does laparoscopic hysterectomy increase the risk of vaginal cuff dehiscence? An analysis of outcomes form multiple academic centers and a review of the literature. Surg Technol Int 2015 Nov;27: 157-62.

Omar HR, Sprenker C, Alvey E, Hoffman M, Karlnoski R, Ching YH **Cain MA**, Mangar D, Camporesi EM. The value of occlusive balloons in the management of abnormal placentation: a retrospective study. Journal of Obstetrics and Gynaecology. 2015 Oct 22:1-4

Mogos M, Salemi J, **Cain MA**, Whiteman VE, Salihu HM. Recent trends in placenta accreta in the United States and its impact on maternal–fetal morbidity and healthcare-associated costs, 1998–2011. Journal of Maternal, Fetal and Neonatal Medicine. 2016 Apr;29(7): 1077-1082.

Brumley J, **Cain MA**, Stern M, Louis JM. <u>Gestational Weight Gain and Breastfeeding Outcomes in Group Prenatal Care.</u> J Midwifery Womens Health. 2016 Sep;61(5):557-562. doi: 10.1111/jmwh.12484. Epub 2016 Jul 18.

**Cain MA,** Louis JM. Sleep disordered breathing in pregnancy. Clinics in Laboratory Medicine. Clin Lab Med. 2016 Jun;36(2):435-46. doi: 10.1016/j.cll.2016.01.001. Epub 2016 Mar 4. Review.

**Cain MA,** Salemi JL, Tanner JP, Kirby RS, Salihu HM, Louis JM. Pregnancy as a window to future health: maternal placental syndromes and short-term cardiovascular outcomes. Am J Obstet Gynecol. 2016 Oct;215(4):484.e1-484.e14. doi: 10.1016/j.ajog.2016.05.047. Epub 2016 Jun 2.

Mcdowell, M, **Cain MA**, Brumley J. Excessive Gestational Weight Gain. Journal of Midwifery and Womens Health. 2019 Jan; 64(1): 46-54

**Cain, MA**, Brumley J, Louis-Jacques A, Drerup M, Stern M, Louis JM. A Pilot Study of a Sleep Intervention Delivered through Group Prenatal

Care to Overweight and Obese Women. <u>Behav Sleep Med.</u> 2019 May 25:1-11. doi: 10.1080/15402002.2019.1613995

Kendle AM, Roekner JT, Santillana EC, Kis LE, **Cain MA.** Cystic Fibrosis Transmembrane Conductance Regulator Modulators During Pregnancy: A Case Series. Cureus. 2021 Aug 25;13(8):e17427. doi: 10.7759/cureus.17427. PMID: 34589336; PMCID: PMC8460487.

Müller R, Steffensen T, Krstić N, **Cain MA**. Report of a novel variant in the FAM111A gene in a fetus with multiple anomalies including gracile bones, hypoplastic spleen, and hypomineralized skull. Am J Med Genet A. 2021 Jun;185(6):1903-1907. doi: 10.1002/ajmg.a.62182. Epub 2021 Mar 22. PMID: 33750016.

Akers A, De Assis V, Scoma C, **Cain MA,** Crousillat DR. Patient-Prosthesis Mismatch in Pregnancy: A Multidisciplinary Approach. JACC Case Rep. 2023 Dec 6;27:102073. doi: 10.1016/j.jaccas.2023.102073. PMID: 38094715; PMCID: PMC10715955.

**Cain MA,** Lee J, Kuper S, Sinkey R. Two pregnancies in a patient following pulmonary endarterectomy for chronic thromboembolic pulmonary hypertension. BMJ Case Rep. 2023 Nov 14;16(11):e256158. doi: 10.1136/bcr-2023-256158. PMID: 37963661; PMCID: PMC10649499.

Schenone CV, **Ashley Cain M,** Schenone AL, Smith T, Tsalatsanis A, Louis JM, Crousillat DR. Changes in rate-pressure product associated with pregnancy. Am J Obstet Gynecol MFM. 2024 Mar 5;6(4):101338. doi: 10.1016/j.ajogmf.2024.101338. Epub ahead of print. PMID: 38453019.

Pressman K, Wellcome J, Pooran C, Crousillat D, **Cain MA**, Louis JM. Factors associated with early readmission for postpartum hypertension. AJOG Glob Rep. 2024 Feb 28;4(2):100323. doi: 10.1016/j.xagr.2024.100323. PMID: 38919706; PMCID: PMC11197109.

Price CR, Kendle A, **Cain MA.** A Case of Acute Hypertriglyceridemia-Induced Pancreatitis in Pregnancy and Its Clinical Implications. Case Rep Endocrinol. 2024 Oct 10;2024:5896861. doi: 10.1155/2024/5896861. PMID: 39421549; PMCID: PMC11486530.

Nadeau C, Gonzalez JM, Cardy C, **Cain MA**, Crousillat D. It's Probably Just Heart Burn! A Case of Pregnancy-Associated Spontaneous Coronary Artery Dissection. Adv Emerg Nurs J. 2024 Nov 25. doi: 10.1097/TME.0000000000000550. Epub ahead of print. PMID: 39591634.

#### **Published Abstracts**

**Cain, MA;** Shah M; Downes, K; Bassaly, R; Mehta, S; Glazerman, L; Hoyte, L; Sobolewski, J; Solnik, MJ; Hart, S; Incidence of vaginal cuff dehiscence

and urinary tract injury after total laparoscopic hysterectomy. Journal of Minimally Invasive Gynecology 2012:19 (6) S55

**Cain, MA**; Salemi JL; Tanner, JP; Mogos, M; Kirby, RS; Whiteman, VE; Salihu, HM. Timing of delivery of a gastroschisis affected pregnancy and its impact on perinatal outcomes and hospital costs. American Journal of Obstetrics & Gynecology 2014: 210 (1) S97

**Cain, MA**; Louis, JM; Whiteman, VE: Maternal methadone dose and neonatal outcomes. American Journal of Obstetrics & Gynecology 2014: 210 (1) S296

**Cain, MA;** Salemi JL; Tanner, JP; Whiteman, VE; Kirby, RS. Gastroschisis Delivery after 37 weeks is Associated with Improved Neonatal Respiratory Function and Outcomes. Reproductive Sciences March 2014; vol. 21, 3 suppl: T120.

**Cain, MA;** Salemi JL, Tanner JP, Kirby RS, Salihu HM, Louis JM. Pregnancy as a window to future health: maternal placental syndromes and short term cardiovascular disease risk. American Journal of Obstetrics & Gynecology 2015: 195

**Cain, MA;** Brumley J; Beauchamp W; Louis-Jacques A; Drerup M; Louis JM. A pilot study of cognitive behavioral therapy for insomnia delivered in pregnancy. Sleep 2016; 39. Abstract supplement.

Hoffman MS, Louis-Jacques A, Xiong Y, Camporesi E, Mangar D, **Cain M.** Experience with Nonemergent hysterectomy for placenta accreta. Proceedings of the 81st Annual Meeting of the SAAOG. January, 2019.

Hale, E; **Cain, MA**: COVID-19 and Sleep in Pregnancy. 2021 Annual Clinical and Scientific Meeting of American College of Obstetrics and Gynecology.

Pressman, K., Pooran, C., Wellcome, J. L., Crousillat, D., **Cain, M.**, & Louis, J. M. (2023). Blood pressure thresholds associated with postpartum preeclampsia readmissions. American Journal of Obstetrics and Gynecology, 228(1, Supplement), S672. https://doi.org/https://doi.org/10.1016/j.ajog.2022.11.1129

Schenone, C., **Cain, A.,** Tsalatsanis, A., Kumar, A., Louis, JM., Crousillat, D. Differences In Myocardial Oxygen Consumption in Pregnancies Complicated by Chronic Hypertension and Hypertensive Disorders of Pregnancy. J Am Coll Cardiol. 2023 Mar, 81 (8\_Supplement) 2227. https://doi.org/10.1016/S0735-1097(23)02671-2

de Assis V, **Cain M**, Louis JM, Kendle A, Crousillat D. Effects of galactopoieses on post-partum dyslipidemia among obese women. American Journal of Obstetrics and Gynecology. 2023;228(1, Supplement):S760-S1.

#### https://doi.org/https://doi.org/10.1016/j.ajog.2022.11.1266

de Assis, V., **Cain, M., Louis, J. M.**, Kendle, A., & Crousillat, D. (2023). Effects of galactopoieses on post-partum dyslipidemia among obese women. American Journal of Obstetrics and Gynecology, 228(1, Supplement), S760-S761.

https://doi.org/https://doi.org/10.1016/j.ajog.2022.11.1266

Schenone, C., **Cain, A.,** Edghill, J., Louis, J., Tanner, J., & Crousillat, D. R. (2024). PRECONCEPTION AND EARLY PREGNANCY RATE-PRESSURE PRODUCT AS PREDICTORS OF HYPERTENSIVE DISORDERS OF PREGNANCY. In Journal of the American College of Cardiology (Vol. 83, Issue 13, p. 2431). Elsevier BV. <a href="https://doi.org/10.1016/s0735-1097(24)04421-8">https://doi.org/10.1016/s0735-1097(24)04421-8</a>

Schenone CV, **Ashley Cain M**, Schenone AL, Smith T, Tsalatsanis A, Louis JM, Crousillat DR. Changes in rate-pressure product associated with pregnancy. Am J Obstet Gynecol MFM. 2024 Mar 5;6(4):101338. doi: 10.1016/j.ajogmf.2024.101338. Epub ahead of print. PMID: 38453019.

Pressman, K., Wellcome, J., Pooran, C., Crousillat, D., **Cain, M. A.**, & Louis, J. M. (2024). Factors associated with early readmission for postpartum hypertension. In AJOG Global Reports (Vol. 4, Issue 2, p. 100323). Elsevier BV. <a href="https://doi.org/10.1016/j.xagr.2024.100323">https://doi.org/10.1016/j.xagr.2024.100323</a>

Molly Monsour, Elliot Pressman, Katherine Pressman, Sara Hartnett-Wright, **Mary Cain**, Kunal Vakharia. Impact of decompressive craniectomy on labor management in pregnant women. 2024 CNS Annual Meeting.

Nadeau C, Gonzalez JM, Cardy C, **Cain MA**, Crousillat D. It's Probably Just Heart Burn! A Case of Pregnancy-Associated Spontaneous Coronary Artery Dissection. Adv Emerg Nurs J. 2024 Nov 25. doi: 10.1097/TME.000000000000550. Epub ahead of print. PMID: 39591634.

#### Case Reports, Technical Notes, Letters

**Cain MA**, Whiteman VE, Buhari MA, Louis JM. Positive Interferon-Gamma Release Assay Leading to a Diagnosis of *Mycobacterium tuberculosis* Pericarditis in Pregnancy. Obstetrics and Gynecology. 2014

Müller R, Steffensen T, Krstić N, **Cain MA.** Report of a novel variant in the FAM111A gene in a fetus with multiple anomalies including gracile bones, hypoplastic spleen and hypomineralized skull. Am J Med Genet A. 2021 Mar 22. doi: 10.1002/ajmg.a.62182. Online ahead of print. PMID: 33750016

Akers, A., De Assis, V., Scoma, C., **Cain, M. A.,** & Crousillat, D. R. (2023). Patient-Prosthesis Mismatch in Pregnancy. *JACC., 27*. https://doi.org/10.1016/j.jaccas.2023.102073

Monsour, M., Pressman, E., Pressman, K., **Cain, M. A.**, & Vakharia, K. (2024). Safety of labor, Valsalva maneuver, and neuraxial anesthesia for pregnant women after decompressive craniectomy: Case series and review of the literature. *International Journal of Gynaecology and Obstetrics: The Official Organ of the International Federation of Gynaecology and Obstetrics*. <a href="https://doi.org/10.1002/ijgo.15894">https://doi.org/10.1002/ijgo.15894</a>

## Non peer reviewed

Louis, JM and **Cain, MA**. Sleep pregnancy and your future health. <a href="https://www.healthywomen.org/content/article/sleep-pregnancy-and-your-future-health">https://www.healthywomen.org/content/article/sleep-pregnancy-and-your-future-health</a>. 24 May 2017

### **Service**

National Committee Online Abstract Reviewer 2024 CREOG & APGO Annual Meeting	2023
Committee member ABOG Committee on standard setting in Maternal Fetal Medicine written examination	2021
Committee member ACGME maternal fetal medicine milestones committee	2021
<b>Director</b> Resident forum Society for Maternal Fetal Medicine Annual meeting	2021- 2023
Committee member  Society for Maternal Fetal Medicine Communications committee	2016- 2019
ACGME Milestones – Focus Group Member	2023

### **Hospital Committees**

Co-Chair

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Maternal Morbidities review committee Tampa General Hospital	12/11/2024 2020-
Committee member Special assessment sub committee USF GME	2024-
Committee member USFTPH Patient experience initiative	2024
State Physician lead Florida perinatal Quality Collaborative Hypertension in Pregnancy	2024
Committee member RVU reallocation working group University of South Florida	2018- 2020
Committee member Maternal Morbidities review committee Tampa General Hospital	2018- 2020
Committee member Sepsis Committee Tampa General Hospital	2015- 2018
Committee member and physician representative Florida Perinatal Quality Collaborative Hypertension in pregnancy initiate committee Tampa General Hospital	2015- 2018
Committee member Normal Birth Task Force Tampa General Hospital	2005- 2006
President Pediatric interest group Medical College of Georgia School of Medicine Augusta, Ga	2021-
Editorial Board Positions Member, Editorial Board "Obstetrics and Gynecology"	2015-
<u>Journal reviewer positions</u> Reviewer "Obstetrics and Gynecology"	2020-
Invited reviewer- "Journal of Perinatology Invited reviewer- "Journal of Gynecologic surgery	
Invited reviewer- "International Journal of Behavioral Medicine	e" 2020-

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Invited Reviewer- "Behavioral Sleep Medicine"	2020-
Invited Reviewer- "Journal of Maternal Fetal and Neonatal	2019
Medicine" Invited Reviewer "Sleep Medicine" Reviewer "Ultrasound in Obstetrics and Gynecology"	2015
Society Memberships Fellow, American Congress of Obstetricians and Gynecologists Society for Maternal Fetal Medicine	2012-
Media Appearances:	
"Zika virus in pregnancy" WFLA Tampa News Channel 8	2016
"Zika virus in pregnancy" WTSP Tampa News Channel 10	2016
"Zika virus in pregnancy" NBC National Nightly News	2016
"Increasing cases of congenital Syphilis" WTSP Tampa News Channel 10	2020
"Covid-19 in pregnancy" WFLA Tampa News Channel 8	2020
"Covid-19 vaccines in pregnancy" WFLA Tampa News Channel 8	2021
"Covid-19 vaccines in pregnancy" Bay News 9 Tampa	2021
"Covid-19 vaccine safety in pregnancy" WTSP Tampa News Channel 10	2021
"Telehealth Postpartum Care" WFLA Tampa News Channel 8	2021
Community Involvement	2010
Tampa General Hospital White Coat Program	2019-

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Co-president Davidson in Tampa Alumni Chapter	2015
Students for Community Involvement, Medical College of Georgia, Augusta GA	2004 2008
Volunteer Counselor, Camp Rainbow,	
summer camp for pediatric cancer patients, Camp Twin Lakes, Rutledge GA	2005

Publicity Chair, United Community Action, Davidson College, Davidson NC