CURRICULUM VITAE SARAH MARIE DAVIS, M.D.

Division of Maternal-Fetal Medicine Department of OB/GYN Women & Infants Hospital of Rhode Island 101 Dudley Street Providence, RI 02905-2499

Phone: (401) 274-1122, extension 47452

Fax: (401) 453-7622 Email: smdavis@wihri.org

EDUCATION

Undergraduate Eastern Mennonite University, Biology, B.A., magna cum laude, 1998-

2002

Honors: Cords of Distinction Award

Medical School Penn State College of Medicine, M.D., 2002-2006, Doctor of Medicine

2006.

POSTGRADUATE TRAINING

Residency Obstetrics and Gynecology, Department of Obstetrics and

Gynecology, University of Utah Health Care, 50 N. Medical Drive, Salt

Lake City, UT, 84132, 2006-2010

Fellowship Maternal-Fetal Medicine, Department of Obstetrics, Gynecology &

Reproductive Sciences, University of Vermont, 111 Colchester Ave.

Burlington, VT 05401, 2010-2013

POSTGRADUATE HONORS AND AWARDS

The Michael W. Varner, M.D. Resident Research Award, Second place, Department of Obstetrics and Gynecology, University of Utah,

Salt Lake City, UT

2011 Selected participant, 23rd Annual NICHD Conference on Maternal-

Fetal-Neonatal-Reproductive Medicine, Itasca, IL

2012 Best New Investigator Poster Presentation Award, Society for

Gynecologic Investigation, San Diego, CA

2012 Selected participant, Exxcellence in Clinical Research course, San

Diego, CA

2015 Obstetrics & Gynecology: Top 10% of Peer Reviewers

2016 CG CAHPS Dean's List for extraordinary patient satisfaction, scoring

in the 99th percentile among providers nationwide. PennState Health:

Milton S. Hershey Medical Center

2016 Obstetrics & Gynecology: Top 10% of Peer Reviewers

2017-present Scholar, Brown University/Women & Infants Hospital Women's

Reproductive Health Research (WRHR K12) Career Development Program: Improving Women's Health Through Career Development in

Clinical Research

2018-present Hassenfeld Child Health Innovation Institute Award, Brown University

PROFESSIONAL LICENSES AND BOARD CERTIFICATION

State medical licensure

2007-2012 State of Utah License Physician

Medical License: 6803854-1205, 6803854-8905

2010-2014 State of Vermont License Physician

Medical License: 042.0011972

2013-2016 State of Pennsylvania License Physician

Medical License: MD449808

2015-present State of Rhode Island License Physician

Medical License: MD15152

2015-present Commonwealth of Massachusetts License Physician

Medical License: 265332

Board certification

2013 Diplomate, American Board of Obstetrics & Gynecology, Obstetrics &

Gynecology

2015 Diplomate, American Board of Obstetrics & Gynecology, Maternal-

Fetal Medicine

ACADEMIC APPOINTMENTS

2013-2015 Assistant Professor, Maternal-Fetal Medicine, Department of

Obstetrics and Gynecology, Penn State College of Medicine,

Hershey, PA

2015-2017 Assistant Professor (Clinical), Maternal-Fetal Medicine, Obstetrics &

Gynecology at the Warren Alpert Medical School of Brown University,

Providence, RI

2017-present Assistant Professor, Maternal-Fetal Medicine, Obstetrics &

Gynecology at the Warren Alpert Medical School of Brown University,

Providence, RI

HOSPITAL APPOINTMENTS

2010-2013 Clinical Instructor, University of Vermont Department of Obstetrics,

Gynecology & Reproductive Sciences, Burlington, VT

2013-2015 Assistant Professor, Maternal-Fetal Medicine, Department of

Obstetrics and Gynecology, Penn State Milton S. Hershey Medical

Center, Hershey, PA

2015-present Maternal-Fetal Medicine Specialist, Division of Maternal-Fetal

Medicine, Department of Obstetrics and Gynecology, Women &

Infants Hospital of Rhode Island, Providence, RI

2016-present Consulting physician, Obstetrics and Gynecology, Rhode Island

Hospital, Providence, RI

2016-present Medical staff, Obstetrics – Maternal Fetal Medicine, Southcoast

Health, Fall River, MA

OTHER APPOINTMENTS

2014-present Peer Reviewer: Obstetrics & Gynecology

2016 Ad hoc member, Center for Disease Control (CDC) Special Emphasis

Panel (SEP):

<u>IP16-001</u>: "Research on the Epidemiology, Vaccine Effectiveness and Treatment of Influenza and Other Respiratory Viruses in Southeast

Asia and the Western Pacific"

<u>IP16-002</u>: "Annual Estimates of Influenza Vaccine Effectiveness for Preventing Medically Attended Laboratory-Confirmed Influenza in the

United States"

2016-present Institution representative (PI) for Fetal Treatment Program of New

England, North American Fetal Therapy Network (NAFTNet)

2017 Ad hoc reviewer: Public Library of Science (PLOS) ONE

HOSPITAL COMMITTEES

2014-2015 Delivery Room Committee, Penn State Milton S. Hershey Medical

Center, Hershey, PA

2016-2017 Member, Care New England Simulation Steering Committee

UNIVERSITY COMMITTEES

2008-2010 Student Advisory Committee, Department of Obstetrics and

Gynecology, University of Utah, Salt Lake City, UT

2011-2012 Program Representative, Graduate Medical Education, University of

Vermont, Burlington, VT

2014-2015 Obstetrics & Gynecology Departmental Research Committee, Penn

State Milton S. Hershey Medical Center, Hershey, PA

2015-present Obstetrics program leader, Resident simulation training, Obstetrics &

Gynecology at the Warren Alpert Medical School of Brown University,

Providence, RI

2016-present Member, Program Evaluation Committee, Maternal-Fetal Medicine

fellowship, The Warren Alpert Medical School of Brown University,

Providence, RI

MEMBERSHIP IN SOCIETIES

2006-present The American Congress of Obstetricians and Gynecologists

2010-present Society for Maternal-Fetal Medicine

2012-2013 Society for Gynecologic Investigation, in-training membership

2014-present American Institute of Ultrasound in Medicine

2016-present Institution representative (PI) for Fetal Treatment Program of New

England, North American Fetal Therapy Network (NAFTNet)

2016-present Member, American Society for Reproductive Immunology

PUBLICATION LIST

ORIGINAL PUBLICATIONS IN PEER-REVIEWED JOURNALS

- Davis SM, Clark EA, Nelson LT, Silver RM. The association of innate immune response gene polymorphisms and puerperal group A streptococcal sepsis. Am J Obstet Gynecol. 2010 Mar;202(3):308.e1-8.
- 2. Allaf MB, Vintzileos AM, Chavez MR, Wax JA, Ravangard SF, Figueroa R, Borgida A, Shamshirsaz A, Markenson G, **Davis S**, Habenicht R, Haeri S, Ozhand A, Johnson J, Sangi-Haghpeykar H, Spiel M, Ruano R, Meyer M, Belfort MA, Ogburn P, Campbell WA, Shamshirsaz AA. First-trimester sonographic prediction of obstetric and neonatal outcomes in monochorionic diamniotic twin pregnancies. *J Ultrasound Med.* 2014 Jan;33(1):135-40.
- 3. Allaf MB, Campbell WA, Vintzileos AM, Haeri S, Javadian P, Shamshirsaz AA, Ogburn P, Figueroa R, Wax J, Markenson G, Chavez MR, Ravangard SF, Ruano R, Sangi-Haghpeykar H, Salmanian B, Meyer M, Johnson J, Ozhand A, **Davis S**, Borgida A, Belfort MA, Shamshirsaz AA. Does early second-trimester sonography predict adverse perinatal outcomes in monochorionic diamniotic twin pregnancies? *J Ultrasound Med.* 2014 Sep;33(9):1573-8.
- 4. Davis SM, Sweet LM, Oppenheimer KH, Suratt B, Phillippe M. Estradiol and

progesterone influence on influenza infection and immune response in a mouse model. Am J Reprod Immunol. 2017 Oct;78(4).

OTHER PEER-REVIEWED PUBLICATIONS

 Cheng S-B, Davis S, Sharma S. Maternal-Fetal cross talk through cell-free DNA, telomere shortening, microchimerism, and inflammation. Am J Reprod Immunol. 2018;e12851.

BOOKS AND BOOK CHAPTERS

- 1. **Davis SM**, Branch DW. *Thromboprophylaxis in pregnancy: who and how?* Obstet Gynecol Clin North Am. 2010 Jun;37(2):333-43.
- 2. Klein LL, **Davis SM**, Moore M, Silver B, Feltovich H, Krakow D (2012). Abnormal Hands: Number of Fingers. In: Copel, D'Alton, Gratacos, Platt, Tutschek, Feltovich, Odibo (Eds). *Obstetric Imaging* (pp. 323-329). Philadelphia: Elsevier Saunders.
- 3. **Davis SM**, Silver B, Feltovich H, Krakow D (2012). Abnormal Hands: Thumbs. In: Copel, D'Alton, Gratacos, Platt, Tutschek, Feltovich, Odibo (Eds). *Obstetric Imaging* (pp. 320-323). Philadelphia: Elsevier Saunders.

PUBLICATIONS SUBMITTED OR IN PREPARATION

 North American Fetal Therapy Network: Timing of and indications for delivery following laser ablation for twin-twin transfusion syndrome. Zaretsky M, Tong S, Lagueux M, Lim FY, Khalek N, Emery SP, **Davis S**, Moon-Grady AJ, Drennan K, Treadwell MC, Petersen E, Santiago-Munoz P, Brown R, for the North American Fetal Therapy Network. Manuscript submitted to the American Journal of Obstetrics and Gynecology, submitted March 2, 2018.

ABSTRACTS

- Davis SM, Clark EA, Nelson LT, Silver RM. The Association between Innate Immune Response Gene Polymorphisms and Puerperal Group A Streptococcal Sepsis Morbidity. 2009 Central Association of Obstetricians and Gynecologists 76th Annual Meeting, Maui, HI. ORAL
- Clark AS, Spargen PF, Davis SM, Wilson AR, Augustine NH, Martins TB, Silver RM, Hill HR. Puerperal Group A Streptococcal Sepsis and Proinflammatory Immune Response. 2010 Society for Gynecologic Investigation Annual Scientific Meeting, Orlando, FL.
- 3. **Davis SM**, Sweet L, Oppenheimer K, Phillippe M. Sex Steroid Effect on Influenza Infection. 2012 Society for Gynecologic Investigation Annual Scientific Meeting, San Diego, CA. **Best New Investigator Poster Presentation Award**
- 4. Phillippe M, **Davis SM**, Sweet LM. Synergistic Effects of Bacterial PAMPs on Influenza Infection During Pregnancy. 2012 Society for Gynecologic Investigation Annual Scientific Meeting, San Diego, CA.
- Davis SM, Sweet L, Oppenheimer K, Phillippe M. Estradiol and Progesterone Influence on TLR Signaling Pathway Gene Expression during Influenza Infection. 2013 Society for Gynecologic Investigation Annual Scientific Meeting, Orlando, FL. ORAL
- 6. North American Fetal Therapy Network: Indications for delivery following laser ablation for twin-twin transfusion syndrome. Zaretsky M, Tong S, Lagueux M, Lim FY, Khalek N, Emery SP, **Davis S**, Moon-Grady AJ, Drennan K, Treadwell MC, Petersen E, Santiago-Munoz P, Brown R, for the North American Fetal Therapy Network. 2018 Society for Maternal-Fetal Medicine Annual Meeting, Dallas, TX.

SCHOLARLY WORK PUBLISHED IN OTHER MEDIA

PEER-REVIEWED

 Clinical Expert Series: Ask the Experts. A practical approach to fetal growth restriction. Copel JA, Bahtiyar MO. Obstetrics & Gynecology. 123(5):1057-1069, May 2014. Questions written by Sarah Davis, MD. www.greenjournal.org

INVITED PRESENTATIONS

Local/Regional

- 1. Thromboprophylaxis in pregnancy: who & how. Grand Rounds, Department of Obstetrics and Gynecology, The University of Utah School of Medicine, Salt Lake City, UT. December 10, 2009.
- 2. Estradiol and progesterone influence on influenza infection in a mouse model. Vermont Lung Center, Burlington, VT. September 10, 2013.
- 3. *Timing of umbilical cord clamping after birth.* Perinatal conference, Penn State Milton S. Hershey Medical Center, Hershey, PA. April 18, 2014.
- Estradiol and progesterone influence on influenza infection in a mouse model and influenza update. Grand Rounds, Department of Obstetrics and Gynecology, Penn State Milton S. Hershey Medical Center, Hershey, PA. October 15, 2014.
- A case of suspected multicystic dysplastic kidney. Multidisciplinary Antenatal Diagnosis and Management (M.A.D.A.M.) Conference, The Program in Fetal Medicine, Alpert School of Medicine at Brown University, Women & Infants Hospital, Providence, RI. December 4, 2015.
- Patient Round Up. Multidisciplinary Antenatal Diagnosis and Management (M.A.D.A.M.) Conference, The Program in Fetal Medicine, Alpert School of Medicine at Brown University, Women & Infants Hospital, Providence, RI. January 6, 2017.
- 7. Patient Round Up. Multidisciplinary Antenatal Diagnosis and Management (M.A.D.A.M.) Conference, The Program in Fetal Medicine, Alpert School of Medicine at Brown University, Women & Infants Hospital, Providence, RI. March 3, 2017.
- 8. Patient Round Up. Multidisciplinary Antenatal Diagnosis and Management (M.A.D.A.M.) Conference, The Program in Fetal Medicine, Alpert School of Medicine at Brown University, Women & Infants Hospital, Providence, RI. July 7, 2017.
- 9. *CPC: HIE and anemia in a late preterm infant.* Perinatal Management Conference, Department of Pediatrics, Alpert School of Medicine at Brown University, Women & Infants Hospital, Providence, RI. September 6, 2017.
- Biology of Pregnancy: An Overview. Reproductive and Perinatal Epidemiology at the Brown School of Public Health, Providence, Rhode Island. September 18, 2017.
- 11. Patient Round Up. Multidisciplinary Antenatal Diagnosis and Management (M.A.D.A.M.) Conference, The Program in Fetal Medicine, Alpert School of Medicine at Brown University, Women & Infants Hospital, Providence, RI. March 16, 2018.

GRANTS

Completed funding

The study of cell-free DNA, inflammation, and trophoblast apoptosis
 Center of Biomedical Research Excellence (COBRE) for Reproductive Health
 Pilot Project, Women and Infants Hospital, Brown University
 Role: PI

Dates: 10/01/2017-03/31/2018 Funding (direct): \$33,180

Ongoing funding

1. Brown University/Women & Infants Hospital Women's Reproductive Health Research (WRHR) Career Development Program: Improving Women's Health

Through Career Development in Clinical Research

NIH/NICHD: 5 K12 HD050108 13

Role: Scholar (02/2017-current), PI-Phipps

Dates: 7/1/2015-6/30/2020 Funding (direct): \$312,324

2. Mechanisms underlying obstetric pathobiology: the study of cell-free fetal DNA, TLR9 mediated inflammation, and parturition using human in vitro modeling Oh-Zopfi Pilot Project Grant Program, William and Mary Oh – William and Elsa Zopfi Professorship in Pediatrics for Perinatal Research

Brown University and Women & Infants Hospital

Role: PI

Dates: 6/1/2017-5/30/2018 Funding (direct): \$13,450

3. The association between fetal telomeres, placental apoptosis, parturition, and health disparities

Hassenfeld Child Health Innovation Institute, Alpert Medical School of Brown

University Role: PI

Dates: 01/01/2018-12/31/2018 Funding (direct): \$25,000

UNIVERSITY TEACHING ROLES

07/2010-09/2013	Obstetrics and Gynecology resident lecturer, The University of
	Vermont Medical Center, Burlington, VT (Class size 12)

07/2011-09/2013 Medical student mentor, The University of Vermont College of Medicine, Burlington, VT

07/2011-09/2013 Medical student lecturer, The University of Vermont College of Medicine, Burlington, VT (Class size 15)

11/2013-09/2015 Obstetrics and Gynecology resident lecturer, Penn State Milton S. Hershey Medical Center, Hershey, PA (Class size 20)

11/2013-09/2015 Maternal-Fetal Medicine fellowship lecturer, Penn State Milton S.

Hershey Medical Center, Hershey, PA (Class size 3)

2014-09/2015 Medical student mentor, Penn State College of Medicine, Hershey,

PA

2015-current Obstetrics and Gynecology resident lecturer, The Warren Alpert

Medical School of Brown University, Providence, RI (Class size 32)

2015-current Resident simulation training, Obstetrics program leader, Obstetrics &

Gynecology at the Warren Alpert Medical School of Brown University,

Providence, RI (Class size 32)

2016-current Course co-director, BIOL 6505, Introduction to Fetal Medicine. The

Warren Alpert Medical School of Brown University, Providence, RI http://med.brown.edu/pedisurg/Fetal/Seminar/FetalSeminar.html

2016-current Maternal-Fetal Medicine fellowship lecturer, Maternal-Fetal Medicine

fellowship program, The Warren Alpert Medical School of Brown

University, Providence, RI (Class size 3)

2016-current

Resident research mentor, Obstetrics and Gynecology residency program, The Warren Alpert Medical School of Brown University, Providence, RI

- 1. 2016-present: Katherine Miller, "Is anterior location of placenta previa associated with higher incidence of placenta accreta in women undergoing repeat cesarean delivery?"
- 2. 2016-present: Libertad Flores, "Antenatal education and maternal satisfaction with inpatient postpartum care"

HOSPITAL TEACHING ROLES

05/2014

Fetal Cardiac Imaging, Maternal-Fetal Medicine Sonographer Education, Penn State Milton S. Hershey Medical Center, Hershey, PA (Class size 5)