Erica E. Marsh MD, MSCI

PERSONAL INFORMATION

Erica Elizabeth Marsh M.D.

Citizenship: U.S.A.

Place of Birth: Richmond, Virginia, USA

Work Address:

Department of Obstetrics and Gynecology

Division of Reproductive Endocrinology and Infertility

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Home Address:



June 1991 Harvard College BA magna cum laude in Sociology

June 2001 Harvard Medical School MD cum laude in a special field

June 2008 Northwestern University MSCI Clinical Investigation

TRAINING

July 2001 – June 2005 Harvard Integrated OB/GYN Residency (Brigham and Womens/MGH)

July 2005 – June 2008 Feinberg School of Medicine - Reproductive Endocrinology and Infertility Fellowship

BOARD CERTIFICATION and MEDICAL LICENSURE

Obstetrics and Gynecology Specialty Board Certification American Board of Obstetrics and Gynecology December 31, 2008

Reproductive Endocrinology and Infertility Subspecialty Board Certification American Board of Obstetrics and Gynecology April 6, 2011

Full Medical Licensure – State of Illinois - current

Controlled Substance License – State of Illinois - current

Federal DEA License - current

ACADEMIC APPOINTMENTS

Assistant Professor - Feinberg School of Medicine, Northwestern University, 2008-present.

HOSPITAL APPOINTMENTS

Medical Staff – Northwestern Memorial Hospital. 2008 - present

OTHER EMPLOYMENT

Bain and Company

Boston, MA

Associate Consultant, September 1991-Aug 1993; Senior Associate Consultant, September 1993-August 1994.

Harvard Presidential Administrative Fellow

Cambridge, MA

Posting: Harvard Foundation; September 1994-1995

MGH Presidential Intern

Boston, MA

One year internship with MGH President, Dr. James Mongan, (July1999- June 2000) on health policy, role of the academic medical center in US healthcare and , and Project: Diversity Improvement at Massachusetts General Hospital

AWARDS, HONORS, DISTINCTIONS

- 2013 Chicago Urban League STEM Innovator Award
- 2013 Northwestern Medical Faculty Foundation Physician Clinical Excellence Award
- 2013Martin Luther King Jr. Humanitarian Award Northwestern Memorial Hospital
- 2012 Community Health Volunteer Specialist of the Year Award
- 2011 Leadership Greater Chicago Fellow
- 2008 Endocrine Society Travel Award
- 2008 Berlex Foundation Workshop on Clinical Research
- 2007 Wyeth- Society of Gynecological Investigation Presidential Presenter's Award
- 2006-2007 ACOG/Ortho Women's Health Fellowship in Obstetrics and Gynecology
- 2005 AMA Excellence in Medicine Leadership Award
- 2004 Garrett/Pitcher Award for International Research WHO, Geneva, Switzerland.
- 2003 Harvard Medical School Resident Teaching Award
- 2002 NIH/NMA Academic Medicine Fellowship
- 2002 Endocrine Society Travel Award
- 2001 Wyeth-Ayerst Laboratory Prize in Women's Health
- 2001 Paul Dudley White International Fellowship. Nairobi, Kenya. February, 2001.
- 2000-2001 Selected Professions Medical Fellowship Award Recipient, AAUW

2000 Franklin C. McLean Scholar for Outstanding Academic Achievement, NMF/AAMC

1999 Inducted into the Aesculapean Club of Harvard Medical School,

1997-1998 Career Development Award Recipient, AAUW

1996 National Medical Fellowships (NMF) Scholarship

PROFESSIONAL SOCIETY MEMBERSHIPS

American Society for Reproductive Medicine

American College of Obstetricians and Gynecologists

American Medical Association

Endocrine Society

Massachusetts Medical Society

Women in Endocrinology

PROFESSIONAL ACTIVITIES

Institutional Service

2014-present	Northwestern Medicine Culture Integration Committee
2010-2011	Search Committee, Chairman of Department of OBGYN
2007-2008	Diversity Committee, Feinbrg School of Medicine

Extramural Service

Accreditation Council on Graduate Medical Education (ACGME) OB/GYN Residency Review Committee (RRC) -- Resident/Young Physician representative. May 2004 - April 2006.

Acceditation Council on Graduate Medical Education (ACGME) Resident's Council – Member. May 2004- April 2006.

American College of Obstetricians and Gynecologists – former District I Junior Fellow Chair; Founding member of HMS Student Chapter of ACOG and former Chair; participant in the 2003 and 2004 ACOG Legislative Workshop in Washington D.C.

Review Responsibilities – Ad Hoc Reviewer for the following journals:

American Journal of Obstetrics and Gynecology Obstetrics and Gynecology Journal of Women's Health Fertility and Sterility Reproductive Sciences

Trainees

Geraldine Ekpo MD (2009-2012) – Residency research; 1st Place winner of Resident Research Award in 2012, Department of Obstetrics and Gynecology. Currently a second year fellow at UCSF in Reproductive Endocrinology and Infertility.

Tanaka Dune MD (2010-2013) - Residency Research; 1st Place winner of Resident Research Award in 2013, Department of Obstetrics and Gynecology. Currently a first year fellow at Loyola Medical Center in Urogynecology.

Eden Cardozo MD (2010-2013) – Residency Research; 2nd Place winner of Resident Research Award in 2013, Department of Obstetrics and Gynecology. Currently a first year fellow at Massachusetts General Hospital in Reproductive Endocrinology and Infertility.

Alanna Burnett (2010-2012) Undergraduate and Postbaccalaureate Research. Currently a first year medical student at University of Illinois-Chicago Medical School.

Carolina Andrade (2012-2013) Undergraduate Summer Research and Research Elective. Currently a third year at Oberlin College, Oberlin, OH.

Marissa Ghant (2006-present) High School/Undergraduate/Postbaccalaureate Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Krista Childress (2011-present) Residency Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Anna Strohl (2011-present) Residency Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Jamie McGuire(2011-present) Residency Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Marissa Steinberg (2013-present) Residency Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Leah Hawkins (2013-present) Residency Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Molly Moravek (2012-present) Fellow Research. Division of Reproductive Endocrinology and Infertility; Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Lia Bernardi (2013-present) Fellow Research. Division of Reproductive Endocrinology and Infertility; Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Katherine Sengoba (2012-present) Medical Student AOSC Research Project. Feinberg School of Medicine, Northwestern University Chicago, IL.

Edernst Nocent (2013-present) Medical Student AOSC Research Project. Feinberg School of Medicine, Northwestern University Chicago, IL.

Gricelda Mendoaza (2012-present) Postbaccalaureate Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Liana Woodley (2013-present) Postbaccalaureate Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Artis Lewis (2010-2012) Undergraduate Research. Currently a Masters student at Jefferson Medical College.

Natsai Nyakudarika (2012-present) Medical Student Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Hannah Recht (2011-present) Medical Student Research. Department of Obstetrics and Gynecology – Feinberg School of Medicine, Chicago, IL.

Maureen Brocks (2010-2013) Graduate Nursing Research. Currently a staff nurse on Labor and Delivery at Prentice Women's Hospital of Northwestern Memorial Hospital

Teaching

Clinical teaching of residents and medical students in REI out-patient clinic and in OR

MSIII Lecturer for OB/GYN Rotation, "Infertility"

RESEARCH GRANTS/FUNDING

Current

R21 HD077479 (October 2013-September 2015).

NIH/NICHD

"Role of MicroRNA-29 in Uterine Leiomyoma Pathogenesis"

Role: Principle Investigator (\$424,875)

K12 HD050121 (June 2010-May 2015)

NIH/NICHD

"Women's Reproductive Health Research (WRHR) Scholar Award"

Role: K12 Scholar (\$2,193,080/Scholar: \$671,760)

P01HD057877-01A2 (August 2009- June 2014)

Uterine Leiomyoma Research Center Program. Project 1: Steroid Hormone Action

Role: Co-Investigator. (Center: \$6,058,727/ Project: \$1,545,453)

Friends of Prentice Women's Health Research Grant (September 2013- August 2014)

"Role of Obesity in the Pathogenesis of Fibroids"

Role: Principle Investigator. (\$75,529)

Evergreen Invitational Research Grant (September 2013 – August 2014)

"Taking it to the Streets: A Qualitative Study of the Fibroid Experience"

Role: Principal Investigator (\$30,826)

Past:

ACOG/Ortho Women's Health Academic Training Fellowship in Obstetrics and Gynecology (2006-2007)

"Pathogenesis of Leiomyoma"

Funding for Research Support.

Role: (\$30,000 in direct costs)

Northwestern Memorial Hospital Women's Board Grant (September 2006-August 2007)

Faculty Development Award

"Role of MicroRNA in the Pathogenesis of Leiomyoma"

Role: Principal Investigator (\$25,000 in direct costs)

Northwestern Memorial Foundation Young Investigators Grant (January 2007-December 2007)

Young Investigator Award

"MicroRNA Expression in Leiomyoma"

Role: Principal Investigator (\$25,000 in direct costs)

2008 Harold Amos Medical Faculty Development Fellow -- Robert Wood Johnson Foundation. (September 2008 – April 2014)

"Role of Leptin in the Pathogenesis of Leiomyoma"

Role: Principal Investigator (\$412,000)

INVITED LECTURES

- 1. Everything You Wanted to Know About Fibroids. "Speaking of Women's Health" Health Fair, Chicago, IL, September 2006
- 2. The Role and Regulation of Aromatase in Human Uterine Leiomyoma. NICHD Uterine Fibroid Research Update Workshop. NIH, Bethesda, MD September, 2007.
- 3. Everything You Wanted to Know About Fibroids. "Speaking of Women's Health" Health Fair, Chicago, IL, September 2007
- 4. Role of MiRNA in Leiomyoma Pathogenesis. Chicago Area Reproductive Endocrinologists Meeting. Chicago, IL. October 2007
- 5. Aromatase and Leiomyoma, University of Michigan Reproductive Science Program, February 2008.
- 6. The Role of Leptin in Leiomyoma Pathogenesis, Virginia Commonwealth University, Reproductive Sciences Seminar, March 2008
- 7. Role of Sex Steroids in the Pathophysiology of Leiomyomata. Symposia, Society of Gynecologic Investigation, March 2010.
- 8. Novel Directions for Fibroid Research. Symposia, American Society of Reproductive Medicine Annual Meeting, October 2011.
- 9. "Highlights in the Basic Science of Uterine Fibroids", Fibroid Trilogy Presentation; American Society of Reproductive Medicine Annual Meeting, Boston, MA October 2013.
- 10. "Understanding Uterine Fibroids" Women's Health Town Hall Keynote Speaker for 7th Congressional District (Cong. Danny Davis), Chicago Southside; Oct 2013.
- 11. "Understanding Uterine Fibroids" Women's Health Town Hall Keynote Speaker for 7th Congressional District (Cong. Danny Davis), Chicago Northside; December 2013.

12. "A Disproportionate Burden: The African-American Fibroid Experience", International Workshop on the Genetics, Histology and Pathogenesis of Leiomyoma. University of Rostock, Rostock, Germany. May 2014.

SCHOLARLY BIBLIOGRAPHY

Original, peer-reviewed research articles

- 1. Hayes FJ, McNicholl DJ, Schoenfeld D, **Marsh EE**, Hall JE. Circulating free alpha-subunit is superior to luteinizing hormone as a marker of gonadotropin-releasing hormone despite desensitization at fast pulse frequencies. *J Clin Endocrinol Metab.* 1999 Mar;84(3):1028-36.
- 2. Hall JE, Lavoie HB, Marsh EE, Martin KA.. Decrease in GnRH pulse frequency with aging in postmenopausal women. *J Clin Endocrinol Metab* May 2000;85:1794-1800.
- 3. **Marsh EE** and Laufer MR. Premenarcheal antecedent of endometriosis without an associated obstructive anomaly: Presentation, diagnosis, treatment and Long Term Follow Up. *Fertil Steril*. 2005 Mar;83(3):758-60.
- 4. Lavoie, HB, **Marsh EE**, Hall JE. Absence of Apparent Circadian Rhythm of Gonadotropins and Free Alpha Subunit in Postmenopausal Women: Evidence for Distinct Regulation Relative to Other Hormonal Rhythms. *Journal of Biological Rhythms*. Feb 2006, 21(1): 58-67.
- 5. Xue Q, Lin Z, Cheng YH, Huang CC, **Marsh E**, Yin P, Milad MP, Confino E, Reierstad S, Innes J, Bulun SE. Promoter Methylation Regulates Estrogen Receptor 2 in Endometrium and Endometriosis. *Biol Reprod.* 2007 Oct;77(4):681-7. Epub 2007 Jul 11.
- 6. **Marsh EE**, Z Lin, P Yin, M Demura, M Milad, D Chakravarti, S Bulun. Differential Expression of MicroRNA in Leiomyoma versus Normal Myometrium. *Fertility and Sterility*. 2007 Aug 30; [Epub ahead of print].
- Yin P, Lin Z, Cheng YH, Marsh EE, Utsunomiya H, Ishikawa H, Xue Q, Reierstad S, Innes J, Thung S, Kim JJ, Xu E, Bulun SE. Progesterone Receptor Regulates bcl-2 Gene Expression Through Direct Binding To Its Promoter Region In Uterine Leiomyoma Cells. *J Clin Endocrinol Metab*. 2007 Nov;92(11):4459-66. Epub 2007 Sep 4.
- 8. Ishikawa H, Fencki V, **Marsh EE**, Yin P, Chen D, Cheng YH, Reisterd S, Lin Z, Bulun SE.CCAAT/Enhancer Binding Protein beta (C/EBP{beta}) Regulates Aromatase Expression via Multiple and Novel DNA Sequences in Uterine Leiomyoma. *J Clin Endocrinol Metab*. 2008 Jan 8; [Epub ahead of print].
- 9. Hoekstra AV, Sefton EC, Berry E, Lu Z, Hardt J, **Marsh** E, Yin P, Clardy J, Chakravarti D, Bulun S, Kim JJ. Progestins activate the AKT pathway in leiomyoma cells and promote survival. *J Clin Endocrinol Metab*. 2009 May;94(5):1768-74. doi: 10.1210/jc.2008-2093. Epub 2009 Feb 24.
- 10. Mesquita FS, Dyer SN, Heinrich DA, Bulun SE, **Marsh EE**, Nowak RA. Reactive oxygen species mediate mitogenic growth factor signaling pathways in human leiomyoma smooth muscle cells. *Biol Reprod*. 2010 Feb;82(2):341-51. Epub 2009 Sep 9.

- 11. Luo X, Yin P, Reierstad S, Ishikawa H, Lin Z, Pavone ME, Zhao H, **Marsh EE**, Bulun SE. Progesterone and mifepristone regulate L-type amino acid transporter 2 and 4F2 heavy chain expression in uterine leiomyoma cells. *J Clin Endocrinol Metab*. 2009 Nov;94(11):4533-9.
- 12. Bulun SE, Cheng YH, Pavone ME, Yin P, Imir G, Utsunomiya H, Thung S, Xue Q, **Marsh EE**, Tokunaga H, Ishikawa H, Kurita T, Su EJ. 17Beta-hydroxysteroid dehydrogenase-2 deficiency and progesterone resistance in endometriosis. *Semin Reprod Med*. 2010 Jan;28(1):44-50.
- 13. Yin P, Lin Z, Reierstad S, Wu J, Ishikawa H, **Marsh EE**, Innes J, Cheng Y, Pearson K, Coon JS 5th, Kim JJ, Chakravarti D, Bulun SE. Transcription factor KLF11 integrates progesterone receptor signaling and proliferation in uterine leiomyoma cells. *Cancer Res.* 2010 Feb 15;70(4):1722-30.
- 14. Fujimoto VY, Jain T, Alvero R, Nelson LM, Catherino WH, Olatinwo M, **Marsh EE**, Broomfield D, Taylor H, Armstrong AY. Proceedings from the Conference on Reproductive Problems in Women of Color. *Fertil Steril*. 2010 Feb 18. [Epub ahead of print].
- 15. Klingman KM*, **Marsh EE***, Klerman EB, Anderson EJ and Hall JE. Absence of Circadian Rhythms of Gonadotropin Secretion in Women. *J Clin Endocrinol Metab*. 2011 Feb 23. [Epub ahead of print]
- Shaw ND, Gill S, Lavoie HB, Marsh EE, Hall JE. Persistence of sleep-associated decrease in GnRH pulse frequency in the absence of gonadal steroids. *J Clin Endocrinol Metab*. 2011 Aug;96(8):2590-5. Epub 2011 Jun 6.
- 17. **Marsh EE**, Shaw ND, Klingman KM, Tiamfook-Morgan TO, Yialamas MA, Sluss PM, Hall JE. Estrogen Levels Are Higher across the Menstrual Cycle in African-American Women Compared with Caucasian Women. *J Clin Endocrinol Metab*. 2011 Oct;96(10):3199-206. Epub 2011 Aug 17.
- 18. Cardozo ER, Neff LM, Brocks ME, Ekpo GE, Dune TJ, Barnes RB, **Marsh EE**. Infertility patients' knowledge of the effects of obesity on reproductive health outcomes. *Am J Obstet Gynecol*. 2012 Dec;207(6):509.e1-509.e10. doi: 10.1016/j.ajog.2012.08.020. Epub 2012 Aug 16. PMID: 22981319
- 19. Cardozo ER, Dune TJ, Neff LM, Brocks ME, Ekpo GE, Barnes RB, Marsh EE. Knowledge of Obesity and Its Impact on Reproductive Health Outcomes Among Urban Women. *J Community Health*. 2012 Sep 9. [Epub ahead of print]. PMID: 22961295
- 20. **Marsh EE**, Ekpo GE, Cardozo ER, Brocks M, Dune T, Cohen LS. Racial differences in fibroid prevalence and ultrasound findings in asymptomatic young women (18-30 years old): a pilot study. *Fertil Steril*. 2013 Jun;99(7):1951-7. doi: 10.1016/j.fertnstert.2013.02.017. Epub 2013 Mar 15.

- 21. Yin H, Lo JH, Kim JY, **Marsh EE**, Kim JJ, Ghosh AK, Bulun S, Chakravarti D. Expression profiling of nuclear receptors identifies key roles of NR4A subfamily in uterine fibroids. *Mol Endocrinol*. 2013 May;27(5):726-40. doi: 10.1210/me.2012-1305. Epub 2013 Apr 2.
- 22. **Marsh EE**, Brocks ME, Ghant MS, Recht HS, Simon M. Prevalence and knowledge of heavy menstrual bleeding among African American women. *Int J Gynaecol Obstet*. 2014 Apr;125(1):56-9. doi: 10.1016/j.ijgo.2013.09.027. Epub 2014 Jan 2.
- 23. Ekpo GE, Ghant MS, Woodley LM, Recht HS, McKnight T, Marsh EE. Knowledge of Uterine Fibroid Symptoms and Presentation amongst African-American Women: A Pilot Study. J Reprod Med (Accepted).

Editorials, Reviews, Chapters, Books, Commentaries

- 1. **Marsh EE** and Bulun SE. Steroid Hormones and Leiomyomas. *Obstetrics and Gynecology Clinics of North America*. March 2006; 33: 59-67 (invited and peer reviewed)
- Bulun SE, Chen D, Lu M, Zhao H, Cheng Y, Demura M, Yilmaz B, Martin R, Utsunomiya H, Thung S, Su E, Marsh E, Hakim A, Yin P, Ishikawa H, Amin S, Imir G, Gurates B, Attar E, Reierstad S, Innes J, Lin Z. Aromatase excess in cancers of breast, endometrium and ovary. J Steroid Biochem Mol Biol. 2007 Aug-Sep;106(1-5):81-96. Epub 2007 May 24 (invited and peer reviewed)
- 3. Bulun SE and Marsh EE. Hormone Action. Van Voorhis BJ, and LC Layman, editors. American College of Obstetricans and Gynecologists, publisher. In: Precis An Update in Obstetrics and Gynecology: Reproductive Endocrinology 3rd Edition, 3-30 (2007).
- 4. **Marsh EE** and Barnes R. Obesity and Conception. 2008. In: Rees M, Karoshi M, Keith L, (eds). Obesity and Pregnancy. Royal Society of Medicine Press Ltd: London, UK: 2008. pp 78-88.

Abstracts

- 1. **Marsh EE**, S Reierstad, P Yin, Bulun SE. Leptin induces cell proliferation and increased aromatase expression in human leiomyoma cells in vitro. <u>The Endocrine Society</u>, 87th Annual Meeting, San Diego, CA, 2005 (Poster Presentation).
- 2. **Marsh EE**, P Yin, S Reierstad and SE Bulun: In vivo and in vitro expression of leptin and leptin receptor in human myometrium and leiomyoma. <u>The Endocrine Society</u>, 88th Annual Meeting, Boston, Massachusetts, 2006 (Poster Presentation).
- 3. Yin P, Z Lin, S Reierstad, **Marsh EE**, H Utsunomiya, S Thung and SE Bulun: The effects of progesterone on cell survival and Bcl-2 mRNA levels in leiomyoma smooth muscle cells. Society of Gynecological Investigation, 53rd Annual Meeting, Toronto, Canada, 2006 (Poster Presentation).
- 4. **Marsh EE**, Z Lin, P Yin and SE Bulun: Role of microRNAs in human uterine leiomyoma pathogenesis and growth. <u>American Society for Reproductive Medicine</u>, 62nd Annual Meeting,

- New Orleans, Louisiana, 2006 (Poster Presentation).
- 5. **Marsh EE**, Z Lin, P Yin, E Confino and SE Bulun: Increased aromatase mRNA expression and cell proliferation in human leiomyoma cells with leptin treatment. <u>VIII International Aromatase Conference</u>, Baltimore, Maryland, 2006 (Poster Presentation).
- 6. Marsh EE, Z lin, M Demura, P Yin, E Xu, J.J Kim and SE Bulun: Leptin increases aromatase expression in human leiomyoma cells primarily via the Jak-Stat pathway and aromatase promoter I.4 region. Society of Gynecological Investigation, 54th Annual Meeting, Reno, Nevada, 2007 (Oral Presentation Presidential Presenters Award).
- 7. Hoekstra A, EC Ward, Z Lu, JL Hardt, EE Marsh, P Yin, SE Bulun and JJ Kim: The forkhead family of transcription factors are differentially expressed and regulated in leiomyoma and myometrial cells. <u>Society of Gynecological Investigation</u>, 54th Annual Meeting, Reno, Nevada, 2007 (Oral Presentation).
- 8. Ishikawa H, V Fenkci, **EE Marsh**, P Yin, D Chakravarti and SE Bulun: Aromatase expression in uterine fibroid cells is regulated by promoter elements that bind CAATT/enhancer binding proteins (C/EBPs). <u>Society for Gynecologic Investigation</u>, 54th annual meeting, Reno, Nevada, 2007 (Poster Presentation).
- Yin P, Z Lin, YH Cheng, EE Marsh, H Utsunomiya, H Ishikawa, S Reierstad, JJ Kim, E Xu, and SE Bulun: A sequence in the 5' flanking region on the human Bcl-2 gene confers progestin responsiveness in uterine leiomyoma cells in vitro. <u>Society for Gynecologic Investigation</u>, 54th annual meeting, Reno, Nevada, 2007 (Poster Presentation).
- 10. Xue Q, Z Lin, P Yin, EE Marsh, S Reierstad and SE Bulun: Differential expression of ERβ in endometrial and endometriotic stromal cells: regulation by methylation. <u>Society for Gynecologic Investigation</u>, 54th annual meeting, Reno, Nevada, 2007 (Oral Presentation).
- 11. Ishikawa H, V Fencki, EE Marsh, P Yin, D Chakravarti and SE Bulun: CAATT/enhancer binding proteins binding element and cAMP response element play crucial role for aromatase expression in uterine fibroid. <u>The Endocrine Society</u>, 89th Annual Meeting, 2007 (Poster Presentation).
- 12. Trukhacheva E, Z Lin, S Reierstad, J Innes, **EE Marsh**, Q Xue, Y Cheng and SE Bulun: Estradiol regulates ESR1 (ER-α) gene expression via alternative promoters in endometrium and endometriosis. The Endocrine Society, 89th Annual Meeting, 2007 (Poster Presentation).
- 13. Yin P, Z Lin, **EE Marsh**, YH Cheng H Ishikawa, Q Xue, S Reierstad, J Innes, JJ Kim, E Xu and SE Bulun: Identification of novel progesterone receptor target genes in uterine leiomyoma. <u>The Endocrine Society</u>, 89th Annual Meeting, 2007 (Poster Presentation).
- 14. Xue Q, Z Lin, P Yin, M Milad, H Utsunomiya, E Confino, S Reierstad, EE Marsh, and SE Bulun: Methylation of SF-1 (steroidogenic factor-1) promoter regulates its expression in endometrial vs. endometriotic stromal cells. <u>The Endocrine Society</u>, 89th Annual Meeting, 2007 (Poster Presentation).
- 15. Y Wang, **EE Marsh**, SE Bulun and E Xu: Stem cell markers in mouse and human uterine myometrium and leiomyoma. <u>The Endocrine Society</u>, 89th Annual Meeting, 2007 (Poster Presentation).
- 16. **EE Marsh**, Z Lin, P Yin, E Xu, D Chakravarti and SE Bulun: MicroRNA species are differentially expressed in human uterine leiomyoma versus adjacent normal myometrium. The Endocrine Society, 89th Annual Meeting, 2007 (Poster Presentation).
- 17. **EE Marsh**, Z Lin, P Yin, E Confino, M Milad, and SE Bulun. Leptin Increases VEGF and VEGF-Receptor Expression in Human Uterine Leiomyoma Cells In Vitro. <u>American Society</u>

- <u>for Reproductive Medicine</u>, 63nd Annual Meeting, Washington, DC, October 2007 (**Oral Presentation**).
- 18. Ishikawa H, I Fencki, Marsh EE, P Yin, D Chakravarti, Bulun SE. CCAAT Enhancer Binding Protein Beta (C/EBPb) Regulates Aromatase P450 Expression via New Cis – acting Element in Uterine Leiomyoma Cells. <u>American Society for Reproductive Medicine</u>, 63rd Annual Meeting, Washington, DC, October 2007 (Accepted for Oral Presentation).
- 19. Trukhacheva E, Lin Z, Reierstad S, Innes J, **Marsh EE**, Xue Q, Cheng YH, Bulun SE: ERbeta regulates ER-alpha expression and response to estradiol via specific promoters in endometrium and endometriosis. <u>American Society for Reproductive Medicine</u>, 63rd Annual Meeting, Washington, DC, October 2007 (Accepted for Oral Presentation).
- 20. EE Marsh, EK Pearson, P Yin, H Ishikawa, JJ Kim, SE Bulun: Expression of Steroidogenic Acute Regulatory (StAR) Protein, CYP11A1 and CYP17A1 mRNA in Human Normal Myometrium and Leiomyoma Tissue. <u>The Endocrine Society</u>, 90th Annual Meeting, 2008 (Poster Presentation-Travel Award Recipient).
- 21. EE Marsh, EK Pearson, P Yin, H Ishikawa, JJ Kim, SE Bulun. Expression of Steroidogenic Acute Regulatory (StAR) Protein, CYP11A1 and CYP17A1 mRNA in Human Normal Myometrium and Leiomyoma Tissue. <u>The Endocrine Society</u>, 90th Annual Meeting, 2008 (Poster Presentation-Travel Award Recipient).
- 22. Ishikawa H, Yin P, **Marsh EE**, Bulun SE. SOX8 is a Novel Target Gene of Progesterone in Uterine Leiomyoma. <u>The Endocrine Society</u>, 90th Annual Meeting, 2008 San Francisco, CA (Accepted for Poster Presentation).
- 23. Yin P, Lin Z, Reierstad S, Cheng YH, **Marsh EE**, Ishikawa H, Innes J, Kim JJ, Bulun SE. Chromatin immunoprecipitation cloning identifies KLF11 as a novel progesterone receptor target gene that regulates proliferation in uterine leiomyoma. <u>Society for Gynecological Investigation</u>, 55th Annual Meeting, 2008 San Diego, CA (Accepted for Oral Presentation).
- 24. Ishikawa H, Fencki IV, Marsh EE, Yin P, Cheng YH, Lin Z, Bulun SE. CCAAT enhancer binding protein beta (C/EBPβ) regulates cAMP dependent aromatase expression via novel and multiple cis-acting element in uterine leiomyoma. <u>Society for Gynecological Investigation</u>, 55th Annual Meeting, 2008 San Diego, CA (Accepted for Oral Presentation).
- 25. **EE Marsh**, J Wu, CR Parker, and SE Bulun. Steroidogenic Acute Regulatory Protein (StAR) Facilitates de novo Synthesis of Progesterone by Human Leiomyoma (LEIO) and Myometrium (MYO) Cells. American Society for Reproductive Medicine, 65th Annual Meeting, Atlanta, GA, October 2009 (**Oral Presentation**).
- 26. **EE Marsh**, J Wu, SEBulun and A Veis. Why the Bulge?: The Differential Expression of Elastic Fibril Components in Leiomyoma (LEIO) and Myometrium (MYO) and Effects of Estradiol Treatment. <u>American Society for Reproductive Medicine</u>, 66th Annual Meeting, Denver, CO, October 2010 (**Oral Presentation**).
- 27. **EE Marsh**, J Wu, R Novak, SE Bulun, and A Veis. A Vitamin a Day: The Role of Vitamin C (Ascorbic Acid) and its Transporters in the Transcription and Secretion of Colia1 and Colia2 in Leiomyoma and Myometrium. <u>American Society for Reproductive Medicine</u>, 66th Annual Meeting, Denver, CO, October 2010 (Poster Presentation).
- 28. Marsh EE, Wu J, Bulun SE, Veis A. A Major Role of the Minor Collagens: Collagen V and Collagen XI Expression, Secretion and Regulation in Leiomyoma (LEIO) Versus Myometrium (MYO). Society for Gynecologic Investigation, 58th Annual Meeting, Miami Beach, FL, 2011 (Poster Presentation).

- 29. Marsh EE, Wu J, Cardozo E, Ekopo G, Bulun SE. From a Little Sparc Bursts a Flame: Differential Expression and Regulation of Secreted Protein Acidic and Rich in Cysteine (SPARC) in Leiomyoma and Myometrium. <u>American Society for Reproductive Medicine</u>, 67th Annual Meeting, Orlando, FL, 2011 (Oral Presentation).
- 30. ER Cardozo, GE Ekpo, ME Brocks, LM Neff, RB Barnes and EE Marsh. Weight Matters: Knowledge of Obesity and Reproductive Health Outcomes Amongst Infertility Patients. <u>American Society for Reproductive Medicine</u>, 67th Annual Meeting, Orlando, FL, 2011 (Poster Presentation).
- 31. Marsh EE, Parker BJ, Barrett A, Wu J, Navarro A, Bulun SE. Expression and Epigenetic Regulation of Novel Tumor Suppressor EGF Containing Fibulin-Like Extracellular Matrix Protein 1 (EFEMP1) in Leiomyoma (LEIO) and Myometrium (MYO). Society for Gynecologic Investigation, 59th Annual Meeting, San Diego 2012 (Accepted for Oral Presentation).
- 32. Marsh EE, Parker JB, Wu J, Lewis A, Bulun SE. MicroRNA-29 Expression and Function in the Pathogenesis of Leiomyoma <u>Society for Gynecologic Investigation</u>, 59th Annual Meeting, San Diego 2012 (Accepted for Oral Presentation).
- 33. ER Cardozo, TJ Dune, ME Brocks, GE Ekpo, LM Neff, RB Barnes and **EE Marsh**. Chew on This: Knowledge of the Effects of Obesity on Reproductive Outcomes in an Urban Community. Society for Gynecologic Investigation, 59th Annual Meeting, San Diego, CA, 2012 (Accepted for Poster Presentation).
- 34. Marsh EE, Parker JB, Wu J, Bulun SE, Transforming Growth Factor Beta Upregulates Collagen via the Suppression of MicroRNA-29 Expression in Leiomyoma. <u>American Society for Reproductive Medicine</u>, 68th Annual Meeting, San Diego, CA October 2012 (Oral Presentation).
- 35. Cardozo ER, Ekpo GE, Brocks ME, Cohen L, **Marsh EE**. Racial differences in fibroid prevalence and ultrasound findings in asymptomatic young women (ages 18-30 years old). <u>American Society for Reproductive Medicine</u>, 68th Annual Meeting, San Diego, CA; October 2012 (Accepted for Oral Presentation).
- 36. Dune TJ, Sweet E, Recht H, Ahern C, Cameron K, **Marsh EE**. Something to Talk About: Racial, Socioeconomic & Cultural Influences on Seeking, Initiating & Continuing Infertility Treatment Society for Gynecologic Investigation, 60th Annual Meeting, Orlando, FL March 2013 (Accepted for Poster Presentation).
- 37. Brocks M, Ghant MS, Recht H, **Marsh EE**. Heavy Menstrual Bleeding in African American Women: Prevalence, Knowledge and Health Literacy. <u>Society for Gynecologic Investigation</u>, 60th Annual Meeting, Orlando, FL March 2013 (Accepted for Poster Presentation).
- 38. Recht H, Ekpo G, Cardozo E, Dune T, **Marsh EE**. Health Literacy, Knowledge and Awareness of Uterine Fibroids Amongst Urban Women. <u>Society for Gynecologic Investigation</u>, 60th Annual Meeting, Orlando, FL March 2013 (Accepted for Poster Presentation).
- 39. Mendoza G, Ghant MS, Strohl AE, Cameron KA, Simon MA, **Marsh EE**. Knowledge of Human Papilloma Virus (HPV), Cervical Cancer, and HPV Vaccination in African American Women (AAW). <u>Society for Gynecologic Investigation</u>, 60th Annual Meeting, Orlando, FL March 2013 (Accepted for Poster Presentation).
- 40. **Marsh EE**, Wu J, Bulun SE. Expression of Hypoxia Inducible Factors and Differential Impact of Hypoxia on the Major Fibrillar Collagens in Leiomyoma Cells. <u>Conjoint Meeting of the</u>

- <u>International Federation of Fertility Societies and the American Society for Reproductive Medicine</u>, Boston, MA October 2013 (Oral Presentation).
- 41. Ghant MS, Lawson AK, Childress KJ, Confino E, **Marsh EE**. Racial Differences in Anxiety, Appraisal and Knowledge of Infertility Treatment During the First Infertility Visit. <u>Conjoint Meeting of the International Federation of Fertility Societies and the American Society for Reproductive Medicine</u>, Boston, MA October 2013 (Accepted for Oral Presentation).
- 42. Childress KJ, Lawson AK, Ghant MS, Cardozo ER, Confino E, **Marsh EE**. Is Knowledge Power or is Ignorance Bliss?: The Impact of Infertility Related Knowledge on Patient Anxiety and Appraisal of Treatment. <u>Conjoint Meeting of the International Federation of Fertility Societies and the American Society for Reproductive Medicine</u>, Boston, MA October 2013 (Accepted for Poster Presentation).
- 43. Childress KJ, Ghant MS, Woodley L, Mendoza G, Confino E, **Marsh EE**. Making a Great First Impression: A Comparison of Assisted Reproductive Technology (ART) and Fertility Knowledge Before and After the Initial Infertility Clinic Visit. <u>Conjoint Meeting of the International Federation of Fertility Societies and the American Society for Reproductive Medicine</u>, Boston, MA October 2013 (Accepted for Poster Presentation).
- 44. Ghant MS, Dune TJ, Nyakudarika NC, Recht HS, Sweet E, **Marsh EE**. The Bitter Pill: Racial Differences in Infertility Treatment Experiences. <u>Conjoint Meeting of the International Federation of Fertility Societies and the American Society for Reproductive Medicine</u>, Boston, MA October 2013 (Accepted for Poster Presentation).
- 45. Bernardi LA, Ghant MS, Andrade C, Recht H, **Marsh EE**. A Sixth Sense: Does Subjective Assessment of Menstrual Bleeding Correlate with Measures of Anemia Amongst African American Women (AAW)? <u>Society for Gynecologic Investigation</u>, 61st Annual Meeting, Florence, Italy 2014 (Accepted for Poster Presentation).
- 46. Bernardi LA, Ghant MS, Andrade C, Recht H, **Marsh EE**. Seeing Red: Gynecologic Care in Menstruating African American Women (AAW). <u>Society for Gynecologic Investigation</u>, 61st Annual Meeting, Florence, Italy 2014 (Accepted for Poster Presentation).
- 47. Bernardi LA, Ghant MS, Mendoza G, Strohl AE, Cameron KA, Marsh EE. To Vaccinate or Not?: How Perceived Susceptibility to and Severity of HPV and Cervical Cancer Impacts Administrations of the HPV Vaccine in African American Women (AAW). <u>Society for</u> <u>Gynecologic Investigation</u>, 61st Annual Meeting, Florence, Italy 2014 (Accepted for Poster Presentation).
- 48. Mendoza G, Ghant MS, Strohl AE, Cameron KA, Simon MA, Schink JC, Marsh EE. Knowledge and Perceived Susceptibility and Severity of HPV Amongst African American Women (AAW). <u>Society for Gynecologic Investigation</u>, 61st Annual Meeting, Florence, Italy 2014 (Accepted for Poster Presentation).