UNIVERSITY OF ROCHESTER SCHOOL OF MEDICINE & DENTISTRY CURRICULUM VITAE

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CURRENT POSITIONS

Associate Professor (Part-Time) Obstetrics and Gynecology, University of Rochester School of Medicine & Dentistry, Rochester, NY

Associate Professor (Part-Time) Urology, University of Rochester School of Medicine & Dentistry, Rochester, NY

Chief Medical Officer, EndoGlow, LLC Rochester, NY

EDUCATION

- 1990-1994 Bachelor of Arts: Philosophy, University at Albany, State University of New York
- POST-DEGREE TRAINING
- 2011-2014 Fellowship: Female Pelvic Medicine & Reconstructive Surgery (FPMRS), University of Rochester School of Medicine and Dentistry Rochester, NY
- 2007-2011 Residency: Obstetrics & Gynecology, University of Texas Medical Branch Galveston, TX
- 2003-2007 Doctor of Medicine: University of Texas Medical Branch Galveston, TX

PROFESSIONAL LICENSURE & CERTIFICATIONS

- 2011-present Medical License, New York State
- 2007-2011 Medical License, State of Texas
- 2017 American Board of Obstetricians and Gynecologists Board Certification

FACULTY APPOINTMENTS

- 2020-present Associate Professor (Part-Time) Obstetrics and Gynecology, University of Rochester School of Medicine & Dentistry, Rochester, NY
- 2020- present Associate Professor (Part-Time) Urology, University of Rochester School of Medicine & Dentistry, Rochester, NY

- 2018-2020 Assistant Professor (Part-Time) | Obstetrics and Gynecology, University of Rochester School of Medicine & Dentistry, Rochester, NY
- 2014-2018 Assistant Professor, Obstetrics and Gynecology, University of Rochester School of Medicine & Dentistry, Rochester, NY
- 2018-2020 Assistant Professor (Part-Time), Urology, University of Rochester School of Medicine & Dentistry, Rochester, NY
- 2016-2018 Assistant Professor, Urology, University of Rochester School of Medicine & Dentistry, Rochester, NY

HOSPITAL & ADMINISTRATIVE APPOINTMENTS

- 2021-Present Assistant Director of Biomedical Research Development, University of Rochester School of Medicine and Dentistry Rochester, NY
- 2019- Present Director of Collaborative Education, Division of Female Pelvic Medicine & Reconstructive Surgery, University of Rochester School of Medicine and Dentistry Rochester, NY
- 2016-2019 Assistant Residency Research Director, Department of Obstetrics and Gynecology, University of Rochester School of Medicine & Dentistry, Rochester, NY
- 2014–Present Director of Research, Division of Female Pelvic Medicine & Reconstructive Surgery, University of Rochester School of Medicine and Dentistry Rochester, NY

PROFESSIONAL NON-ACADEMIC EMPLOYMENT HISTORY

- 2018- Present Chief Medical Officer, EndoGlow, LLC Rochester, NY
- 1994-1998 Assistant Fashion Director, PARCO Collections Christian LaCroix, New York City, NY

HONORS AND AWARDS

- 2017 Bladder Health week Honorarium, American Urogynecolgic Society
- 2016 Bladder Health week Honorarium, American Urogynecolgic Society
- 2015 Bladder Health week Honorarium, American Urogynecolgic Society
- 2014 ICARE Bronze Star, University of Rochester School of Medicine & Dentistry
- 2011 Best Laparoscopic Surgeon Award, University of Texas Medical Branch
- 2006 Medical Student Research Award, Center for Tropical Diseases, University of Texas Medical Branch

- 2006 Center for Tropical Diseases Medical Student Research Award, University of Texas Medical Branch
- 2005 Osler Student Scholar Induction, Academy of Oslerian Medicine, University of Texas Medical Branch

ACADEMIC & PROFESSIONAL ORGANIZATIONS

- 2018-2019 Public Responsibility in Medicine and Research (PRIM&R), Member
- 2011-Present American Urogynecolgic Society (AUGS), Member
- 2014-Present Society of Gynecologic Surgeons (SGS), Member
- 2003-2011 American College of Obstetricians and Gynecologists (ACOG), Fellow

COMMITTEES & OTHER ADMINISTRATIVE SERVICE

DEPARTMENTAL

- 2014- Present Clinical Competency Committee, Female Pelvic Medicine & Reconstructive Surgery, University of Rochester School of Medicine and Dentistry Rochester, NY
- 2014- Present Program Evaluation Committee, Female Pelvic Medicine & Reconstructive Surgery, University of Rochester School of Medicine and Dentistry Rochester, NY

HOSPITAL

- 2020-Present Biomedical Research Development Advisory Committee, University of Rochester School of Medicine & Dentistry, Rochester, NY
- 2015- 2021 Scientific Member of the Research Subjects Review Board, University of Rochester School of Medicine & Dentistry, Rochester, NY

NATIONAL

- 2020- Present Collaborative Research in Pelvic Surgery Consortium (CoRPS), American Urogynecolgic Society
- 2016- Present Systematic Review Group, Society of Gynecologic Surgeons
- 2010-2011 Junior Fellow Chair of Section IV, District XI, American College of Obstetricians and Gynecologists
- 2009-2010 Junior Fellow Vice Chair of Section IV, District XI, American College of Obstetricians and Gynecologists
- 2009-2010 Vice Chair of ACOG Junior Fellow Legislative Committee, American College of Obstetricians and Gynecologists

2008-2010 University of Texas Residency Program Representative, American College of Obstetricians and Gynecologists

EDUCATIONAL CONTRIBUTIONS

Medical Students

- 2020 INNOVATION IN MEDICINE: Taught senior medical students the importance of internally driven innovation in medicine. We discussed the scientific and commercialization process.
- 2020 MEDICAL STUDENT FPMRS SELECTIVE: Developed education material for medical students rotating through FPMRS during their 3rd year OB/GYN clerkship.
- 2014-2019 PELVIC FLOOR AND VULVAR DISORDERS: Taught a problem-based learning activity throughout the year as medical students rotate through their OB/GYN clerkships.
- 2014-2018 INTRODUCTION TO PELVIC ORGAN PROLAPSE AND URINARY INCONTINENCE: Annual course for 2nd year medical students on the disease process and therapeutics related to pelvic floor dysfunction.
- 2014-2018 PELVIC FLOOR DYSFUNCTION: An interactive lecture given to 3rd medical students as part of the clinical rotation in Obstetrics & Gynecology.
- 2014-2017 CADAVERIC PELVIC ANATOMY LAB: This course taught 3rd year medical students as a basic science component towards completion of the Gynecology and Obstetrics rotation. Responsibilities included dissection of a cadaver and identification/labeling of specific anatomic structures in addition to teaching. This course was taught every three months.

Residents

- 2020 ROBOTIC AND LAPAROSCOPIC SURGERY LECTURE: Taught basics of minimally invasive surgery to OB/GYN residents, developed a pre and post lecture quiz.
- 2011- Present TVT TECHNIQUES AND 4TH DEGREE LACERATION REPAIR: Hands on didactics taught to OB/GYN residents.
- 2016-2018 PELVIC ORGAN PROLAPSE: Interactive lecture taught annually to Urology residents reviewing the interactions between female pelvic organ prolapse and urinary dysfunction.
- 2014 CLINICAL EXPERIENCE FOR FAMILY MEDICINE RESIDENTS: Provide teaching & mentorship during longitudinal office experience.

Postdoctoral Fellows

- 2017-2020 OBSTRUCTED DEFICATION: Lecture given on diagnosis and treatment of obstructed defecation. Up to date literature and systematic reviews supplied as reading material.
- 2017-2020 OBSTETRIC FISTULAS: Reviewed evidence-based review of medical literature and discussed treatment options.
- 2017-2020 PAINFUL BLADDER SYNDROME: Review of evidence-based literature for the diagnosis and treatment of painful bladder syndrome.
- 2018-2020 FECAL INCONTINENCE: Review of evidence-based literature for the diagnosis and treatment of fecal incontinence.
- 2014-2020 JOURNAL CLUB: Participate in the discussion of previously assigned journal articles of various topics. Review the clinical relevance, study design and statistical techniques of each paper.
- 2014-2020 MORTALITY AND MORBIDITY: Participate in the review of FPMRS complications or unexpected outcomes. This is done in a group setting with Fellow and faculty participation.
- 2018- Present CONTINENCE CENTER DIDACTICS: Multidisciplinary didactic lecture series for FPMRS and ColoRectal Fellows and residents. Developed the curriculum and share teaching responsibilities. Sessions occur once a month.
- **Regional**
- Residents
- 2020 PELVIC ANATOMY: Invited by Albany Medical Center to teach resident didactics on pelvic floor muscles and general pelvic anatomy prior to the cadaver course.
- 2020 CADAVERIC ANATOMY LAB: In collaboration with Albany Medical Center, EndoGlow and Storz, a 3-day cadaver dissection was done ending in an intensive surgical anatomy review with the OB/GYN residents.

Undergraduate Students

2018-2020 INNOVATION AND MEDICAL DEVICE PACKAGING: Invited by Rochester Institute of Technology to teach annual real-world perils and pitfalls to medical device packaging lecture.

<u>National</u>

Postdoctoral Fellows

- 2020 HOW TO NAVIGATE THE JOB MARKET IN THE CURRENT CLIMATE: Participated in the AUGS Fellows forum in a panel-based webinar. I served as a participant and moderator.
- 2018-2020 OBSTRUCTED DEFICATION: Lecture given on diagnosis and treatment of obstructed defecation as a web based didactic sessions for FPMRS fellows around the country. Up to date literature and systematic reviews supplied as reading material.
- 2018-2020 PAINFUL BLADDER SYNDROME: Review of evidence-based literature for the diagnosis and treatment of painful bladder syndrome as a web based didactic sessions for FPMRS fellows around the country.
- 2018-2020 FECAL INCONTINENCE: Review of evidence-based literature for the diagnosis and treatment of fecal incontinence as a web based didactic sessions for FPMRS fellows around the country.

COMMUNITY ACTIVITIES

- 2015- 2019 BLADDER HEALTH WEEK: This is a series of presentations given to the general public focusing on urinary incontinence and urinary tract disorders. Some presentations were invited (Monroe County chapter of the Nurse Practitioners Association) and some were sponsored by URMC. This is done in conjunction with the Urology Department.
- 2013 VOLUNTEER SURGEON: Participated in a 'Medicine for Humanity' trip to Uganda to perform female urogenital fistula repairs.
- 2009-2011 MEDICAL STUDENT COORDINATOR: Section IV, District XI of ACOG. Organized educational and social events for medical students attending regional and national ACOG meetings.
- 1998-2000 UNITED STATES PEACE CORPS: Stationed in Papua New Guinea. Duties included education and coordination of services in a tribal setting.

EXTERNAL ADVISORY / HEALTH COUNCILS & RESEARCH REVIEW COMMITTEES

- 2020- Present Board member and health care advisor for political action committee 'Caring for Democracy'.
- 2020 Regional Innovation Council participant. Have served as a guest entrepreneur to help guide resources and build regional coordination for start-up companies in the upstate New York region.

2015- Present Female Pelvic Medicine and Reconstructive Surgery (FPMRS) Fellowship Consultant, Obstetrics & Gynecology, University of Texas Medical Branch Galveston, TX

PATENTS & INVENTIONS

Doyle, et. al, SURGICAL VISUALIZATION AND MEDICAL IMAGING DEVICES AND METHODS USING NEAR NFRARED FLUORESCENT POLYMER; United States Patent# 19793969.

Doyle, et. al, SURGICAL VISUALIZATION AND MEDICAL IMAGING DEVICES AND METHODS USING NEAR NFRARED FLUORESCENT POLYMER; European Union Patent# 19797703.

Doyle, et. al, SURGICAL VISUALIZATION AND MEDICAL IMAGING DEVICES AND METHODS USING NEAR NFRARED FLUORESCENT POLYMER; China Patent# 19801622.

Doyle, et al, FLUORESCENCE ON DEMAND; United States Patent# 63070354.

Doyle, et al, NEAR INFRARED BREAST TUMOR MARKER; United States Patent# 60018562.

GRANTS & CONTRACTS

PI: Paula Jaye Doyle, Co-Investigators: EndoGlow PRIME; 0% effort supported | Title: Research and Development of New and Innovative Technology | Grant Type: non-NIH | Grant ID: RG&E Development Grant | Awarded: August 2020 | Total Amount: \$40,000.00. The goal of this project is to provide FDA required testing to a medical device.

PI: Paula Jaye Doyle, Co-Investigators: EndoGlow PRIME; 0% effort supported | Title: HotSpot Technology Grant | Grant Type: non-NIH | Grant ID: Venture Creations RIT | Awarded: July 2020 | Total Amount: \$5,000.00. This grant supported a 3-day multiple cadaver learning experience for researchers and OB/GYN Residents at Albany Medical Center.

PI: Paula Jaye Doyle, Co-Investigators: EndoGlow PRIME; 0% effort supported | Title: Tech Garden Acceleration Grant for Innovation | Grant Type: non-NIH | Grant ID: Tech Garden Innovation Funds | Awarded: June 2020 | Total Amount: \$25,000.00. Collaborated with multiple external experts in the field of polymer chemistry and fluorescence to optimize fluorescent plastics.

PI: Paula Jaye Doyle, Co-Investigators: EndoGlow, LLC; 1% effort supported | Title: Manufacturing Grant for the Commercialization of a Surgical Device | Grant Type: non-NIH | Grant ID: FuzeHub | Awarded: March 2018 | Total Amount: \$50,000.00. This project supported the development of a manufacturing initiative involving injection molding of medical devices.

PI: Paula Jaye Doyle, Co-Investigators: Toy Lee, MD, Ron Wood, PhD; 1% effort supported | Title: Cannabinoid Agonist as a Treatment for Cyclophosphamide Induced Cystitis in Mouse Bladder | Sponsor: Mae Stone Goode | Grant Type: non-NIH | Awarded: January 2017 | Total Amount: \$12,995.00 | Direct Cost: \$11,300.00. I mentored and supported Dr. Lee in the development and execution of her fellowship thesis.

PI: Paula Jaye Doyle, Co-Investigators: Ron Wood, PhD; Jay Reeder PhD; 0% effort supported | Title: UR Ventures Development Grant | Grant Type: non-NIH | Awarded: January 2016 | Total Amount: \$12,950.00. Funds were used for development and validation of cleaning, packaging and sterilization protocol for a medical device pilot study.

PI: Paula Jaye Doyle, Co-Investigators: Liodmilla Lipetskaia, 0% effort supported | Title: Coloplast Cadaver Award | Grant Type: non-NIH | Awarded: March 2014 | Total Amount: \$1,500.00. Cadavers were purchased of the purpose of teaching FPMRS Fellows and OB/GYN residents over a 3-month period.

PI: Paula Jaye Doyle, Co-Investigators: Ron Wood, PhD, 1% effort supported | Title: Mae Stone Goode Research Grant | Grant Type: non-NIH | Awarded: January 2012 | Total Amount: \$10,000.00. Personal fellowship project studying the acute effects of radiation induced cystitis on mice.

PRESENTATIONS

National & International Conferences

- July 2020 Doyle PJ, et al. Type of mesh revision for mid-urethral slings may affect outcomes. Oral Presentation representing the SGS Systematic Review Group. Society of Gynecologic Surgeons Annual Scientific Meeting. Virtual. October 2018 * Gevelinger M, Sanderson DJ, Jaworski E, Doyle PJ. Round Table Presentation. Evaluation of Sacral Nerve Stimulator Revision and Explantation in a Single Center, Multidisciplinary Study. AUGS Pelvic Floor Disorders Week; Chicago, IL. October 2018 * Jaworski E, Sanderson DJ, Gevelinger M, Doyle PJ. Changes in the Patient-Reported Outcomes Measurement Information System (PROMIS) Scores Following Sacral Neuromodulation for Lower Urinary Tract Symptoms. Poster Presentation. AUGS Pelvic Floor Disorders Week; Chicago, IL. October 2018 * Sanderson DJ, Gevelinger M, Jaworski E, Doyle PJ. Associated Changes in the Patient-Reported Outcomes Measurement Information System (PROMIS) Scores Following Sacral Neuromodulation for Fecal Incontinence. Poster Presentation. AUGS Pelvic Floor Disorders Week 2018; Chicago, IL. October 2018 * Sanderson DJ, Gevelinger M, Jaworski E, Doyle PJ. Round Table Presentation. Changes in Sleep Disturbance after Treatment of Refractory Urinary Symptoms
 - Changes in Sleep Disturbance after Treatment of Refractory Urinary Symptoms with Sacral Neuromodulation. AUGS Pelvic Floor Disorders Week; Chicago, IL, USA.

- March 2018 * Lee TG. Sanderson D, Doyle PJ, Speranza J. Video Presentation. Robotic
 Assisted Ventral Rectopexy for Rectal Prolapse Using Biologic Mesh. Society of
 Gynecologic Surgeons 44th Annual Meeting. Orlando, FL.
- February 2018 * Lee TG, Doyle P, Schor R, et al. Poster Presentation. Ultrasound Imaging of Murine Cystitis. NIDDK NIH, Individualizing Treatment for Urinary Incontinence: Individualizing Treatment Plans. Bethesda, MD.
- February 2018 * Lee TG, Doyle P, Wood R. Poster Presentation. Murine Voiding Data Collection System. NIDDK NIH, Individualizing Treatment for Urinary Incontinence: Individualizing Treatment Plans. Bethesda, MD.
- February 2018 * Lee TG, Doyle P, Wood R. Poster Presentation. Ultrasound Imaging for the Monitoring of Cyclophosphamide Induced Cystitis in the Mouse Model. NIDDK NIH, Individualizing Treatment for Urinary Incontinence: Individualizing Treatment Plans. Bethesda, MD.
- March 2017 Doyle PJ, Lipetskaia, L. Oral Video Presentation. Near infrared imaging in robotically-assisted urogynecologic surgery. Society of Gynecologic Surgeons Annual Scientific Meeting; San Antonio, TX.
- Sept. 2016 Doyle PJ, Lee TG, Buchsbaum GM. Poster Presentation. Twelve-year review of gynecologic oncology referral pattern to urogynecology. American Urogynecologic Society Conference (AUGS); Denver, CO.
- October 2015 Doyle PJ, Lipetskaia, L. Oral Video Presentation. Robotic midurethral sling removal with concomitant burch colposuspension. American Urogynecologic Society Conference (AUGS); Seattle, WA.
- March 2015 Doyle PJ, Wood R. Oral Video Presentation. Sodium fluorescein as an alternative to indigo carmine. Society of Gynecologic Surgeons Annual Scientific Meeting; Orlando, FL.
- February 2014 Doyle PJ, Wood R. Poster Presentation. Prevention of acute radiation cystitis with intravesical chondroitin sulfate: a functional and histologic mouse model. ASTRO Conference, San Diego CA.
- February 2014 Doyle PJ, Wood R. Poster Presentation. Assessment of bladder permeability in vivo with fluorescein after acute radiation damage. ASTRO Conference, San Diego CA.

Invited Presentations: Local, Regional, & State

October 2019 MEDTalk; Meliora Weekend 2019. Near Infrared Imaging in Surgery. This was an invited talk to highlight work that has been done on near infrared polymers at the University of Rochester.

- June 2019 Rochester Institute of Technology Venture Creations Board. Medical Innovation Presentation: The Process and Realities. Invited to demonstrate the process of discovery and the hurdles of commercialization in medical device innovation.
- June 2019 University of Rochester Medical Center Board Presentation. Invited presentation to highlight medical innovation and the pathway to success at URMC.

Invited Presentations: National & International

April 2013University of Texas Medical Branch Alumni Presentation. Invited to present
fellowship research project on Acute Radiation Cystitis in a murine model.

PUBLICATIONS

Peer-Reviewed Journal Articles

1. Lee, T. G., D. Sanderson, P. Doyle, D. Li and R. W. Wood (2020). "High-definition ultrasound characterization of acute cyclophosphamide-induced cystitis in the mouse." Investigative and Clinical Urology 61(1): 75-80.

2. Sanderson, D. J., M. Gevelinger, E. Jaworski and P. J. Doyle (2020). "Sleep disturbance changes in women after treatment of refractory overactive bladder with sacral neuromodulation." <u>Investigative and Clinical Urology</u> 61(2): 231-237.

3. Grimes, C. L., M. O. Schimpf, C. K. Wieslander, A. Sleemi, P. Doyle, Y. M. Wu, R. Singh, E. M. Balk, D. D. Rahn and G. Society of Gynecologic Surgeons Systematic Review (2019). "Surgical interventions for posterior compartment prolapse and obstructed defecation symptoms: a systematic review with clinical practice recommendations." <u>International Urogynecology</u> Journal 30(9): 1433.

4. Gevelinger, M. M., D. J. Sanderson, E. Jaworski and P. J. Doyle (2019). "Evaluation of Sacral Nerve Stimulation Device Revision and Explantation in a Single Center, Multidisciplinary Study." <u>Neuromodulation</u>.

5. Lipetskaia, L., T. G. Lee, D. Li, H. Meyer, P. J. Doyle and E. Messing (2019). "Pelvic Floor Organ Prolapse After Radical Cystectomy in Patients With Uroepithelial Carcinoma." <u>Female</u> <u>Pelvic Medicine & Reconstructive Surgery</u> Online Publication.

6. Collins, A. F., P. J. Doyle, E. E. Duecy, L. V. Lipetskaia, T. G. Lee and G. M. Buchsbaum (2018). "Do anxiety traits predict subjective short-term outcomes following prolapse repair surgery?" <u>International Urogynecology Journal</u> 30(3): 417-421.

7. Lee, T., D. Sanderson, P. Doyle and G. Buchsbaum (2018). "Anaphylactic Shock After Intravenous Fluorescein Administration for Intraoperative Cystoscopy." <u>Obstetrics and</u> <u>Gynecology</u> 131(4): 727-729.

8. Doyle, P. J., S. G. Thomas and G. M. Buchsbaum (2017). "Barriers to urogynecological care in a population of gynecological oncology patients." <u>International Urogynecology Journal</u> 28(6): 913-916.

9. Collins, A. F., P. J. Doyle, S. Vilasagar and G. M. Buchsbaum (2017). "Utility of anterior vaginal wall length measurement in vaginal reconstructive surgery." <u>International</u> <u>Urogynecology Journal</u> 28(8): 1197-1200.

10. Doyle, P. J., G. Buchsbaum, L. Lipetskaia, E. Duecy and R. Wood (2015). "Sodium Fluorescein Use During Intraoperative Cystoscopy Reply." <u>Obstetrics and Gynecology</u> 125(6): 1500-1500.

11. Doyle, P. J., L. Lipetskaia, E. Duecy, G. Buchsbaum and R. W. Wood (2015). "Sodium Fluorescein Use During Intraoperative Cystoscopy." <u>Obstetrics and Gynecology</u> 125(3): 548-550.

12. Thomas, S. G., H. R. N. Sato, J. C. Glantz, P. J. Doyle and G. M. Buchsbaum (2013). "Prevalence of Symptomatic Pelvic Floor Disorders Among Gynecologic Oncology Patients." <u>Obstetrics and Gynecology</u> 122(5): 976-980.

Books, Monographs, Chapters, & Reviews

- 1. VAGINAL FISTULAS Continuing education chapter written for an Obstetrics and Gynecologic online journal: PeriFacts | *April 2015*
- 2. PESSARY USE FOR PELVIC ORGAN PROLAPSE Continuing education chapter written for an Obstetrics and Gynecologic online journal: PeriFacts. | *April 2014*
- 3. URINARY TRACT INFECTIONS IN WOMEN: DIAGNOSIS AND TREATMENT Continuing education chapter written for an Obstetrics and Gynecologic online journal: PeriFacts. | December 2012
- 4. URINARY INCONTINENCE Continuing education chapter written for an Obstetrics and Gynecologic online journal: PeriFacts. | *August 2012*

Letters, Editorials, & Other Publications

- Robotic-assisted and Laparoscopic Surgery. <u>Robotic-Assisted and Laparoscopic Surgery, Dr.</u> <u>Paula Doyle (efaobgyn.com)</u> Overview on different surgical techniques for different types of minimally invasive gynecologic surgery published on open format web based educational platform. *December 2020*.
- 2. Urinary Incontinence Surrounding Pregnancy.https://babiesafter35.com/urinary-leakageduring-and-after-pregnancy. *May 2019*
- 3. OBG Management. Surgical Technique Video. Sodium fluorescein as an alternative to indigo carmine during intraoperative cystoscopy. *March 2015*