

PROMOTION RECOMMENDATION  
THE UNIVERSITY OF MICHIGAN  
MEDICAL SCHOOL  
DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

Sawsan As-Sanie, M.D., assistant professor of obstetrics and gynecology, Department of Obstetrics and Gynecology, Medical School, is recommended for promotion to associate professor of obstetrics and gynecology, with tenure, Department of Obstetrics and Gynecology, Medical School.

Academic Degrees:

M.P.H.	2004	University of North Carolina
M.D.	1998	Johns Hopkins University
B.A.	1994	Boston University

Professional Record:

2008-present	Assistant Professor of Obstetrics and Gynecology, University of Michigan
2005-2008	Clinical Lecturer, Department of Obstetrics and Gynecology, University of Michigan

Summary of Evaluation:

Teaching: Dr. As-Sanie actively participates in the educational activities of the minimally invasive surgery fellows, house officers and medical students in the Department of Obstetrics and Gynecology. In addition to her dedicated teaching and educational activity efforts, she actively teaches during all of her clinical and surgical encounters with medical students, house officers and fellows. She supervises third-year medical students during their clinical rotation in obstetrics and gynecology. Medical students regularly participate in her outpatient Minimally Invasive Surgery and Chronic Pelvic Pain clinics, outpatient office hysteroscopy clinic, surgical procedures, and inpatient clinical rounds. Dr. As-Sanie supervises residents during multiple aspects of their training in ambulatory and surgical benign gynecology. She serves as a primary educator of laparoscopic and robotic surgery applications in benign gynecology. In recognition of her outstanding teaching, Dr. As-Sanie was selected to receive the Silver Speculum Award in 2014, presented to the faculty member who “best exemplifies in deed and thought the attributes of the enlightened OBGYN.” In addition, she also supervises second-year family medicine residents during their one-month clinical rotation on Women’s Health. Dr. As-Sanie serves as the fellowship director of our nationally recognized Minimally Invasive Gynecologic Surgery Fellowship (MIGS). She serves as the primary research mentor for the MIGS fellows which has resulted in co-authoring nine peer-reviewed publications and two

book chapters with various MIGS fellows in topics related to gynecologic surgical outcomes, chronic pelvic pain, and endometriosis. Under her mentorship, two fellows have received distinguished awards for their research including the AAGL Robotics Technology Award for best robotics paper submitted to the 39<sup>th</sup> Annual Congress of Minimally Invasive Gynecology and the 2014 Jay M. Cooper Endowed Award for Best Prize Paper on Minimally Invasive Gynecology. In addition, Dr. As-Sanie regularly serves as a faculty mentor in the UROP (Undergraduate Research Opportunity Program) and the MedSOAR Programs and has been a research advisor to two undergraduate students. As a result of being recognized as a national expert in chronic pelvic pain, endometriosis, and robotic surgery, she is regularly invited to present CME lectures related to these topics at regional, national, and international meetings. She has been invited to give lectures at the Annual Global Congress on Minimally Invasive Gynecology (Orlando, Florida, November 2016), the International Congress on Minimally Invasive Gynecology (Cartegena, Colombia, February 2017), and a plenary lecture on her novel research in the mechanisms of endometriosis-associated pelvic pain at the World Congress of Endometriosis (Vancouver, Canada, May 2017). The World Congress of Endometriosis is the largest international meeting of experts in the field of endometriosis, and is held only once every two years.

Research: Dr. As-Sanie's research aims to define the neurobiological mechanisms of chronic pelvic pain (CPP). Her interdisciplinary research has focused on the role of the central and peripheral nervous system in the pathogenesis and maintenance of endometriosis-associated CPP. She has published multiple studies demonstrating that women with CPP demonstrate psychophysical and neuroimaging findings that suggest central sensitization as an underlying mechanism of CPP, which is independent of the presence or severity of endometriosis. Furthermore, she has shown that measures of centralized pain predict relevant clinical outcomes, including acute and chronic postsurgical pain. Experts in endometriosis and pelvic pain have recognized her work as "highly impactful and transformative" and in recognition she was the recipient of the internationally recognized World Congress of Endometriosis Radolphe Maheux Award in 2011 for outstanding clinical research in a junior investigator. In 2015, her work on chronic pelvic pain was also cited by a major specialty journal, *Obstetrics and Gynecology*, as among the "Best articles from the past year." Most recently, her research was recognized by receipt of the Kurt Semm Award for the Best Abstract in Laparoscopic Surgeries at the 45<sup>th</sup> Global Congress on Minimally Invasive Gynecology. She is a co-investigator in the NIH-funded Multidisciplinary Approach to the Study of Pelvic Pain (MAPP) Study, and was recently awarded a highly competitive American Association of Obstetrics and Gynecology Foundation Bridge Grant. This grant is awarded to a high impact proposal in women's health most likely to achieve NIH funding. Using compelling preliminary data, she submitted three different R01 proposals in the past year, including a proposal to conduct a prospective study to investigate central and peripheral nervous system factors that may predict persistent pelvic pain after hysterectomy. This R01 application recently received an impact score of 18, in the 2<sup>nd</sup> percentile, and funding is anticipated. Through

collaboration with Dr. Daniel Clauw, an internationally recognized pain researcher and director of the University of Michigan Chronic Pain and Fatigue Research Center, she has led several studies that were the first to conclusively demonstrate that a centralized pain phenotype, similar to fibromyalgia, is present in at least some women with endometriosis and/or CPP. Having demonstrated that women with CPP, both those with and without endometriosis, exhibit hyperalgesia to experimental pain testing at a non-pelvic site, she authored the first published study to specifically demonstrate that this central pain phenotype is independent of the presence and severity of endometriosis or the presence or number of comorbid pain disorders. Her research group was also the first to publish functional neuroimaging data that provides insight into the underlying neurobiological mechanisms of CPP. Finally, the most recent studies she published showed the importance of this phenotype – in that individuals with endometriosis or CPP are much less likely to respond to commonly used analgesic therapies such as opioids or surgery (i.e. hysterectomy).

#### Recent and Significant Publications:

As-Sanie S, Harris R, Napadow V, Kim J, Neshewat G, Kairys A, Williams D, Clauw D, Schmidt-Wilcke T: Changes in regional gray matter volume in women with chronic pelvic pain – a voxel based morphometry study. *Pain* 153:1006-1014, 2012.

As-Sanie S, Harris RE, Harte SE, Tu FF, Neshewat G, Clauw DJ: Increased pressure pain sensitivity in women with chronic pelvic pain. *Obstet Gynecol* 122:1047-1055, 2013.

Mahnert N, Morgan D, Campbell D, Johnston C, As-Sanie S: Unexpected gynecologic malignancy diagnosed after hysterectomy performed for benign indications. *Obstet Gynecol* 125:397-405, 2015.

Janda AM, As-Sanie A, Rajala B, Tsodikov A, Moser SE, Clauw DJ, Brummett CM: Fibromyalgia survey criteria is associated with increased postoperative opioid consumption in women undergoing hysterectomy. *Anesthesiology* 122:1103-1111, 2015.

As-Sanie S, Kim J, Schmidt-Wilcke T, Sundgren PC, Clauw DJ, Napadow V, Harris RE: Functional connectivity is associated with altered brain chemistry in women with endometriosis-associated chronic pelvic pain. *J Pain* 17:1-13, 2016.

Service: Dr. As-Sanie is an active member of the American Society for Reproductive Medicine (ASRM), American Association of Gynecologic Laparoscopists (AAGL), the International Pelvic Pain Society (IPPS) and World Congress of Endometriosis (WCE). She has held multiple leadership positions within these medical societies. Dr. As-Sanie has served on the Board of Directors of the IPPS since 2011. She was elected as secretary of IPPS in 2015, and will ascend to president in 2018. She served

as the course director for the IPPS Basics Program in 2011, 2012, and 2013, and was then appointed as the director of the Scientific Program Committee for the annual meetings in 2014, 2015, and 2016. Within the AAGL, she is a member of the Research Committee, Bylaws Committee, chair of the Site Selection Committee of the Research Consortium, and chair of the Pelvic Pain Special Interest Group. She served as the director of the pelvic pain post-graduate course for the 2014 and 2016 AAGL Global Congress Meetings. She has been appointed as the scientific program chair for the 2017 AAGL Global Congress. Dr. As-Sanie also is on the editorial board for the *Journal of Minimally Invasive Gynecology*. Locally, she is the director of the University of Michigan Minimally Invasive Gynecologic Surgery (MIGS) Program and Fellowship, as well as the director of the Endometriosis and Chronic Pelvic Pain Clinic. She is the most experienced endoscopic and robotic surgeon in benign gynecology in the department and routinely provides high quality care to women with advanced pelvic pathology, including severe endometriosis and large uterine fibroids.

External Reviewers:

Reviewer A: “She is nationally and internationally known as a pain specialist as well as a specialist in minimally invasive surgery. Due to her reputation, she has been asked to speak and present at many international and national conferences... When you look at the group of physicians who focus on chronic pelvic pain and minimally invasive gynecology, Dr. As-Sanie is certainly in the top 1% of those that are nationally recognized.”

Reviewer B: “...Dr. As-Sanie is an outstanding clinician scientist conducting cutting edge research into the brain mechanisms of chronic pelvic pain, and she has provided valuable educational and service contributions to the University and the profession. She has established a national and an emerging international reputation in the field of chronic pelvic pain, and she is highly respected for [her] work in this area.”

Reviewer C: “From the perspective of comparing Dr. As-Sanie to her peers in the same field, for both minimally invasive gynecological surgery and pelvic pain she is outstanding...I feel that Dr. As-Sanie is an outstanding physician scholar... I believe she is among the top three junior attendings I have dealt with in my 25 years in academic medicine.”

Reviewer D: “Dr. As-Sanie is nationally viewed as an up-and-coming leader in understanding and treating endometriosis and chronic pelvic pain... Her clinical expertise has led to numerous requests to provide educational programs at her own institutions as well as national international fora in her field... Dr. As-Sanie is a member of the leading societies in her field and has been further recognized with leadership opportunities including her upcoming Presidency of the International Pelvic Pain Society.”

Reviewer E: “I predict that she will develop into one of the leading OB/GYN clinician-scientists in chronic pelvic pain in the next 10 years... Her innovative approach, as well as her persistence and creativity to move this research field forward are exemplary and the environment at the University of Michigan (with world-class researchers in the areas of neuroimaging and pain research) is outstanding.”

Summary of Recommendation:

Dr. As-Sanie has established herself as a clinical scientist developing an international reputation for her research and teaching in the narrow field of female chronic pelvic pain disorders and her clinical skills in advanced minimally invasive surgery. I am pleased to recommend Sawsan As-Sanie, M.D. for promotion to associate professor of obstetrics and gynecology, with tenure, Department of Obstetrics and Gynecology, Medical School.



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Marschall S. Runge, M.D., Ph.D.  
Executive Vice President for Medical Affairs  
Dean, Medical School

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