

A tribute to Ingrid Nygaard, MD, MS, Editor-in-Chief for Gynecology, 2014–2018



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Dr Ingrid Nygaard served as Editor-in-Chief for Gynecology from January 2014 to December 2018. During her tenure, Ingrid strengthened the quality of the Journal's gynecological content and provided inspiring leadership. She has decided to step down as Editor-in-Chief to focus on her dynamic and cutting-edge research program in pelvic floor health and disease at the University of Utah. Herein, we recognize and honor her contributions.



Early life, medical school, and residency

Born in Trondheim, Norway, Ingrid came to the United States at the age of five years. She lived in New Jersey, Massachusetts, and Missouri, where she attended the University of Missouri to study languages.

Ingrid thought to become an official translator. However, she spent most of her summers visiting her grandparents in Norway and developed a deep and abiding interest in the care of the elderly, which led to her work in nursing homes both in Norway and Missouri as a teenager. She was struck by the fact that some medical problems of older individuals were not optimally managed and noted that those living in nursing homes were not always treated with respect and dignity. It was through these observations and experiences that Ingrid developed an interest in medicine.

Ingrid graduated from medical school at the University of Missouri Health Science Center in Columbia and pursued an internship and residency training in obstetrics and gynecology at the University of Michigan. She was a star, and her tenure at Ann Arbor is still a subject of pride for the department and faculty.

John DeLancey, professor of obstetrics and gynecology at the University of Michigan and a pioneer in urogynecology, told me about Ingrid's residency research thesis. A patient who was an active runner mentioned that many of her friends had given up running because of urinary incontinence.

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Very little was known about the relationship between exercise and incontinence; hence, Ingrid proposed determining the prevalence of exercise-induced urinary incontinence in middle-aged women. John told me that within the blink of an eye Ingrid completed the project. They found that approximately 30% of middle-aged women reported exercise incontinence. The article was published in *Obstetrics and Gynecology*.¹

Having made this observation, Ingrid became fascinated with the mechanisms whereby physical activity influenced pelvic floor health, and this has been an important theme in her research career. John told me that his experience with Ingrid's thesis spoiled him because he thought that all resident theses would unfold with the same speed and results.

During her residency, Ingrid realized that she enjoyed the challenges of surgery. She was inspired by extraordinary surgeons and mentors at the University of Michigan, including John DeLancey, oncologist James Roberts, and George Morley, an exceptional vaginal surgeon.

The department had provided a periscope in George Morley's operating room so that trainees could observe and learn his technique and approach to the solution of problems during vaginal surgery. Aside from surgical technique, Ingrid said she learned a great deal from Dr Morley, including his saying that "you can do it my way, or you can watch me do it my way."

Ingrid also worked with Dr Edward McGuire, who had come from the Yale School of Medicine to be Chair of Urology at the University of Michigan. Dr McGuire had a strong interest in urinary incontinence and its surgical treatment. A multidisciplinary team assembled at the University of Michigan under the leadership of John DeLancey, with contributions from the Department of Urology, to focus on incontinence. Ingrid told me of a clinic jointly run by the Departments of Gynecology and Urology held on Saturday mornings. She recalls fondly the collaborative spirit and camaraderie during those times.

Fellowship in advanced gynecological surgery

Ingrid's interest in surgery and urinary incontinence led her to the field of urogynecology. Because there were very few formal urogynecology fellowships at the time, she chose a fellowship in advanced gynecologic surgery at the Mayo Clinic in Scottsdale, AZ. Her mentors were Dr Javier Magrina,

an exceptional gynecological oncologist, and Dr Jeffrey Cornella, a gifted urogynecologist.

Ingrid was extremely committed to mastering a wide range of surgical procedures. She told me that at the time there were few trainees and she was able to go from operating room to operating room, learning from urologists and colorectal surgeons. Today, Ingrid is widely regarded as a leading gynecological surgeon who has mentored countless residents, fellows, and faculty members.

Joining the faculty at the University of Iowa

After completing her fellowship, Ingrid was attracted to the changes taking place in the Department of Obstetrics and Gynecology at the University of Iowa. The dynamic new Chair, Dr Jennifer Niebyl, was interested in strengthening the academic program. Also appealing to Ingrid was the health care system of Iowa that allowed care for patients, regardless of their financial circumstances. She quickly established an outstanding program in urogynecology and was awarded tenure at the university for her many scholarly contributions to the field.

She continued with her studies of incontinence and also investigated urinary tract infections, the pharmacological management of urinary incontinence, and childbirth-related pelvic floor disorders. In addition, Ingrid served as the Head of General Gynecology and, subsequently, as Head of the Division of Urogynecology and Pelvic Reconstructive Surgery.

Ingrid had a meteoric rise in our discipline, yet she realized additional training could deepen her level of inquiry in urogynecology. She decided to pursue a Master of Science degree in epidemiology, and her Chair, Jennifer Niebyl, supported this endeavor. Thus, for two years, Ingrid worked 50% of the time in clinical matters and devoted the balance of her schedule to understanding clinical epidemiology, biostatistics, and the concepts of study design and analysis.

These experiences proved to be useful for communicating as a principal investigator with members of her research team and collaborators at the *Eunice Kennedy Shriver* National Institute of Child Health and Human Development (NICHD) Pelvic Floor Network.

Professorship at the University of Utah

In 2005, Ingrid joined the faculty at the University of Utah as Professor. She moved with her children and husband, Dr Charles Saltzman, who is the L. S. Peery Presidential Endowed Professor, Chair of the Department of Orthopedics, and Director of the Board of Orthopedic Surgery at the University of Utah.

Ingrid has enjoyed the academic strength of the University of Utah, which has been ranked among the top 10 academic health sciences centers for quality for the last eight years. She appreciates that the university gives high priority to the quality of the patient experience. The department is strong and has a long history of promoting research in several disciplines, including urogynecology and maternal-

fetal medicine. Ingrid noted that patients in Utah are typically interested in and proactive about their health and that she enjoys this interaction.

Principal investigator and intellectual leader

With an extraordinary record of funding by the National Institutes of Health, Ingrid has been the recipient of three R01s and a mid-career award, was the principal investigator for the Pelvic Floor Disorders Network, and currently is principal investigator for a program project on pelvic floor disorders that brings together representatives from bioengineering, exercise science, urogynecology, maternal-fetal medicine, nursing, and family and preventive medicine.

Her current program project focuses on identifying modifiable factors that can enhance pelvic floor health after vaginal childbirth. This success as a grantee is reflected in her academic and scholarly productivity: she has authored more than 200 peer-reviewed publications.

Key contributions of Ingrid's research have led to an improved understanding of the epidemiology of pelvic floor disorders. Using prospective cohort and cross-sectional studies, Ingrid's team found the following: (1) urinary incontinence has a substantial remission and incidence rate;² (2) depression is associated with urinary incontinence;³ (3) obesity is a risk factor for pelvic organ prolapse;⁴ and (4) 1 in 4 US women have moderate to severe symptoms of pelvic disorder.⁵

She went on to design several single-site randomized trials of cohort studies of interventions to improve and understand pelvic floor disorders. Ingrid became the principal investigator for the University of Iowa and then the University of Utah for the NICHD Pelvic Floor Disorders Network from 2001 through 2011.

The network went on to demonstrate that the frequency of stress urinary incontinence after surgery for pelvic organ prolapse in women who were previously continent was reduced by approximately 50% if a preventive surgical procedure was performed at the time of prolapse surgery.^{6,7} Moreover, the team of investigators at the network showed that anticholinergic and onabotulinumtoxin A therapy reduced incontinent episodes in women with urgency incontinence.⁸

In another study, the investigators of the network found that the efficacy of abdominal sacrocolpopexy decreases over time while the risk of mesh-related complications increases.⁹ These studies have changed the practice of medicine and are considered as landmarks in the discipline.

Her continued interest in understanding modifiable risk factors for pelvic floor disorders is the central theme of her NICHD-sponsored program project, which studies the influence of intraabdominal pressure, physical activity, and muscle fitness of the pelvic floor. Through past efforts, Ingrid was one of the first to establish that urinary incontinence is common in nulliparous young athletes and, in particular, with activities that include repetitive bouncing.¹⁰

Interestingly, she and her collaborators found that lifetime leisure activity was associated with decreased odds for stress

urinary incontinence in middle-aged women.¹¹ With her collaborators in bioengineering, Ingrid determined that there is a wide variation in changes in intraabdominal pressure among women doing the same type of exercise or activity.¹²

Recently, her team addressed the question of whether strenuous physical exercise may predispose women to deleterious changes of the pelvic floor and reported that there was no difference, which is reassuring for women desiring this type of exercise.¹³

The recipient of numerous awards for research and teaching, Ingrid has been the US representative for the International Consultations on Urinary Incontinence at multiple conferences alternating between Monaco and Paris. Importantly, she has been called to serve as a leader in our discipline and has been President of the American Urogynecologic Society and the American Gynecological and Obstetrical Society. She views this service as an opportunity to contribute and is particularly grateful for the confidence of the colleagues who nominated her for different positions of leadership.

The first female Editor-in-Chief of the Journal

When Ingrid joined the Journal, she was already experienced with scholarly publication in biomedical journals. Ingrid had served on the Editorial Board of the *International Urogynecology Journal*, *Obstetrics and Gynecology*, and *Female Pelvic Medicine and Reconstructive Surgery*. She was a Consultant Editor for *Obstetrics and Gynecology* and responsible for the popular series “In the Trenches.”

The experience she gained in these posts has certainly been valuable in both her transformational role and leadership at the Journal. Ingrid credits Dr James Scott and Dr Roy Pitkin, former Editors-in-Chief of *Obstetrics and Gynecology*, for introducing her to the editorial process of scholarly journals.

During her tenure as Editor-in-Chief for Gynecology, Ingrid deployed many initiatives that have strengthened the Journal as a premier publication in our discipline. Her monthly podcasts, a great new feature of the Journal, have been dynamic and informative. Ingrid has been able to distill the essence of articles in both gynecology and obstetrics and present them in an interesting and succinct way.

Of the many changes introduced during Ingrid’s tenure as Editor-in-Chief, I share her pride in strengthening the rigor of the editorial process, improved communication among editors, changes in the format of the print version of the journal, an enhanced social media presence for the benefit of our authors and readers, and the *AJOG at a Glance* section. Ingrid has been generous with her time helping countless authors to improve the way clinical science is presented to our readers.

When I asked Ingrid which experience stands out from her five-year tenure as Editor-in-Chief, she remarked that she was struck by the enthusiasm and dedication of clinicians from all over the world who are committed to improve women’s health. Doing research and scholarly work is not easy when one has an active clinical practice. Ingrid admires the curiosity and nobility of those who have responded to the call of

being a physician-scientist and for their perseverance to improve health care.

Next steps

Ingrid is committed to improve the health of women in future generations by focusing on pelvic floor health. She plans to focus her efforts and time in pursuing active research. One in 5 women in the United States undergoes surgery for a pelvic floor disorder. Therefore, she thinks that it is important to understand who is at risk and what can be done for prevention. Ingrid believes that there is a need for individualized risk assessment and treatment of the patient. Indeed, she considers that much of what is done in gynecology is based on knowledge that applies to populations but is not targeted to individuals.

Views on the future of obstetrics and gynecology

When contemplating the future of the discipline, Ingrid believes that the health care system will dramatically change, and this will obviously also affect obstetrics and gynecology. Demographic projections indicate that there will be a larger number of older women in the United States. The optimal treatment of this population to maintain a high-quality life is a major goal.

Ingrid noted that medical therapies have already replaced some standard surgical treatment and anticipates that this trend will continue. She is convinced that breakthroughs in omics techniques will lead the way to a more individualized implementation of treatment and prevention.

On the subject of obstetricians and gynecologists as primary care physicians or subspecialists, Ingrid believes that the continuing trend to become even more specialized is inevitable. She identified the need to control costs as a priority and forecasts that some of medical care will be delivered even without personal appointments.

Working with Ingrid at the Journal

For the past five years, every Wednesday Ingrid and I have had a standing appointment to speak about manuscripts, editorial issues, medicine, and science. This has been one of the most enjoyable, informative, and productive experiences in my life as Editor. Ingrid’s intellectual rigor, integrity, commitment to excellence, and generosity are admirable. This, combined with her grace and wit, made the job of being co-Editor-in-Chief of the Journal a pleasure. ■

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