It’s no secret that a major gender imbalance exists in radiology. The 2017 ACR Commission on Human Resources workforce survey indicates that nationally just 21.5 percent of practicing radiologists are women. And the number of women in radiology leadership roles is even worse: Only 8 percent of all women are leaders as compared to 15 percent of all men.¹

Academic radiology departments are not exempt. At the assistant professor level, the number of men and women are roughly equal; however, women aren’t promoted as quickly as men.² Gender disparity is significant among senior and tenured faculty, and women are grossly underrepresented in departmental leadership roles.³

When it comes to the lack of gender diversity, however, not all academic radiology groups accept the status quo. At Vanderbilt University Medical Center (VUMC) in Nashville, Tenn., for example, the radiology department is effectively bridging the gender gap with a program called Women in Radiology. Launched in 2014 as part of the department’s extensive diversity and inclusion efforts, the program has helped attract more women radiologists to the department and is priming more women radiologists for leadership positions.

The results have been impressive. In just two years, the number of women on the department’s faculty increased from 30 to 39 percent. And, several women radiologists have advanced in their careers due in part to a Women in Radiology initiative called Leadership Intervention to Further the Training of Female Faculty (LIFT-OFF).

Here’s a look at how Vanderbilt developed its Women in Radiology program to help women radiologists advance their careers, leading to a positive impact on VUMC and patient care.

**Ignite a Spark**

In 2014, Lucy B. Spalluto, MD, associate director of Diversity, Equity, and Inclusion, and Stephanie E. Spottswood, MD, MSPH, professor of radiology and chief of pediatric nuclear medicine, set out to address gender disparities at VUMC. “We recognized, anecdotally, that many women in our department seemed to remain at the assistant professor level longer than their male counterparts,” says Spalluto. “We also noticed that there were few women in leadership positions and that women were underrepresented in our residency and fellowship programs. So, we put our heads together and came up with the idea for a Women in Radiology initiative.”

To put the idea into action, the two radiologists took the plan to Reed A. Omary, MD, MS, FACR, the Carol D. and Henry P. Pendergrass Professor and chair of radiology at VUMC. Omary and Spottswood had recently established the Office for Diversity, Equity, and Inclusion in the radiology department. So, a program aimed at meeting the needs of the minority of women in the department was a natural fit.

“When we approached Dr. Omary, he strongly supported the idea and encouraged us to develop a program that would meet the needs of women in the department — at all levels of training and across clinical and research backgrounds,” Spalluto says.

Lucy B. Spalluto, MD, associate director of Diversity, Equity, and Inclusion, co-founded the Women in Radiology initiative to attract more women radiologists and prepare them for leadership positions.
Omary believes programs supporting women in radiology are imperative. "Radiology has traditionally been behind the curve in terms of gender diversity. If we're going to continue to flourish and thrive as a specialty, we need to be intentional about creating an environment that fosters both the entry of new women into our specialty and the ability for women in the specialty to grow and expand their impact," he says. "At VUMC, establishing the Women in Radiology program was the first step in changing our culture to recruit and retain more women and to prepare them to move into leadership roles."

Beyond the impact on the field of radiology, gender diversity can also have a positive impact on patients, says Spalluto, who is also an assistant professor in Vanderbilt’s department of radiology and radiological sciences. "Women can bring a different perspective to the clinical, administrative, and educational facets of radiology," she explains. "Promoting a culture supportive of diversity will benefit our radiology organization as well as our patients and their families. More than half of our patients are women, and the demographics of our healthcare providers should better reflect our patient populations."

Prepare for LIFT-OFF

After getting the greenlight from Omary, Spalluto and Spottswood began to chart a course for Women in Radiology. To start, they conducted a comprehensive needs assessment to measure the perceptions of gender equality, faculty research and teaching needs, and the perceived barriers to the advancement of women faculty members within the department. The web-based survey covered the following: demographics; perceptions of gender equality; work-life balance issues; perceived obstacles to career advancement; and faculty development, research, and teaching needs.

“The survey results showed that the two most significant barriers holding women in our department back from advancement were an understanding of promotional guidelines and a lack of mentorship,” says Spalluto who, along with Spottswood, used this feedback to develop a two-year curriculum aimed at developing knowledgeable, successful, confident women who are prepared to achieve career success and assume leadership positions.

LIFT-OFF consists of 14 priority topics, including work-life balance, CV enhancement, conflict management, and the art of self-promotion. In addition, ongoing gatherings to hear speakers and network among junior and senior faculty provide opportunities to strengthen intradepartmental mentoring.

“One of the women who has benefited from both education and networking is Mary Ann Keenan, DMP, an assistant professor of radiology and radiological sciences. "This program has been a godsend for me," she says. "As a medical physicist, I don't fit the 'radiologist mold,' and I often feel like an outsider. It has been wonderful to get to know some of the other professional women, with everybody sharing their trials and tribulations and solutions. And, of course, hearing the speakers has been very insightful and motivating."

She adds, "Now when I visit our regional imaging clinics, I know my colleagues there; they're my friends. Because of that, whenever there is an imaging issue, they feel comfortable talking to me about it. With teamwork, we can resolve most issues. That's one of the most important things I've gained from this program."

Develop a Culture

Initially, the program only targeted women in radiology. As the program grew, women from other specialties, including emergency medicine and cardiology, expressed interest in attending the events. So, the Women in Radiology team opened the program to
Case Study: Breaking Down Barriers

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their women colleagues from across VUMC. Over time, LIFT-OFF expanded to include fellows, residents, and medical students, and the large departmental programming events welcome men.

Spalluto says, “While our mission is to develop a culture supportive of the career advancement of women in radiology, we recognized that many of our programs would benefit the men in our department, as well. Because we value diversity and inclusion, we have intentionally invited men to speak at our events. And as the initiative grows, we plan to welcome men to more of our programming.”

LIFT-OFF’s initial educational programming ran from June of 2015 through September of 2017. “Early on, we wanted to start with a defined program that we could measure and assess outcomes to see if we were making an impact,” Spalluto says. “We did a thorough evaluation of the program at the completion of year one.”

In the study, 46 percent of the early career women faculty who responded said that they were satisfied with their professional advancement, as compared to only 25 percent before the program. “That metric was important to us,” says Spalluto. “We wanted women in our department to feel like they were able to advance their career paths and that this program was helping them do that.”

Make an Impact

Other results from the evaluation showed that LIFT-OFF was making significant progress toward its primary goals:

- 86 percent of the women agreed or strongly agreed that the LIFT-OFF program provided a better understanding of the department’s promotional guidelines than they had prior to LIFT-OFF.
- 75 percent indicated that they now have better access to faculty development opportunities.
- 69 percent felt the program offered more access to mentorship opportunities than before.
- 63 percent believed the program helped them prepare to move into a leadership position.
- 62 percent reported improved access to career advancement opportunities.

Although long-term success for women advancing their careers will not be evaluated for several years, short-term outcomes are favorable: Two faculty members have been promoted, one has been awarded her first grant, one has had her first scientific abstract accepted, one has accepted a leadership role in alumni relations, and one is pursuing a seminar to assist in a mid-career transition to leadership.

“The impact of the Women in Radiology initiative and LIFT-OFF educational programming has been seismic for our department,” Omary says. “In 2018, we hired five new female clinical faculty members. The Women in Radiology program is a significant reason why many of those women radiologists have chosen to come here.”

More than a recruitment tool, Women in Radiology is also an incubator for women leaders. “It’s one of the places I go as a chair to listen to needs, to get help solving problems, and to discover future leaders in the department,” Omary says. “For example, Women in Radiology recommended one of the department’s radiologists, Dr. Stephanie Kurita, to head our alumni association, the Vanderbilt Radiology Society. Dr. Kurita is now on the board of alumni for VUMC and has a seat at the table for alumni affairs for the entire medical school. We’re now using the concrete results she has achieved to assemble her dossier for promotion to associate professor.”

Based on these stellar results, Women in Radiology has been recognized throughout VUMC and by the greater radiology community as a model for improving gender equity in the specialty. “As we began publishing our findings — including a seminal JACR® article and an Academic Radiology article that was awarded the 2017 Association of University Radiologists’ Joseph E. and Nancy O. Whitley Award — other institutions reached out to us for help to develop similar programs,” Spalluto explains. “It’s an incredible way to move this from a
The local, grassroots movement to a national level. (Read Bridging the Gender Gap to learn more about the national expansion of efforts like Women in Radiology.)

**Build a Community**

At Vanderbilt, the Women in Radiology initiative continues to expand and evolve to meet emerging needs. “Over time, the initiative has become much more than a women’s faculty development program,” Spalluto says. “After LIFT-OFF, we have continued to host educational programming (such as Grand Rounds speakers) and presentations at quarterly departmental leadership meetings. We’re more involved in recruitment of trainees and faculty, and we post names of women for leadership positions. On our website, we highlight the achievements of the women in our department through a quarterly In Focus newsletter article, which helps increase the visibility of women in our department.”

According to women in the radiology department, like Keenan, one of the most valuable benefits of the Women in Radiology initiative is the ongoing opportunities to come together as a group. “Despite our jam-packed lives, women radiologists have to make this a priority,” she says. “Many times, I almost didn’t go to the sessions because I was tired and still had work to do. But I went, and I have never regretted it. I’ve always walked away with something that has helped me get through the next month.”

Omary agrees. “The ongoing gathering of Women in Radiology builds community,” he says. “We’re beyond the era where any one person can do something alone. To really generate impact, we need to collaborate with others. In radiology, building a community that is supportive of women’s career advancement is more imperative than ever before.”

Spalluto agrees that coming together to bridge the gender gap is vital for the radiology specialty to thrive into the future. “It doesn’t matter what size your practice is, whether you’re an academic or in private practice, the most important thing is to promote a culture that supports gender equity,” she says. “When we have more diversity, we make better decisions and we can solve more complex problems. Ultimately, we will all have more success.”

**Next steps:**

- Develop a culture that supports gender equity, provides access to mentoring and guidance for career advancement, and ensures transparency in recruitment, hiring, and promotion.
- Understand the specific needs and challenges of the women in your practice or department, and tailor your program to have the greatest impact.
- Start with a defined program and measure your impact to see if your efforts are moving the needle on recruiting, retaining, and advancing women into leadership. Then share your results with the specialty to encourage greater diversity in radiology.

**ENDNOTES**


4. Association of American Medical Colleges. FACTS: Applicants, Matriculants, Enrollments, Graduates, MD/PhD, and Residency Applicants Data - Data and Analysis - AAMC.

**Share Your Story**

Have a case study idea you’d like to share with the radiology community? To submit your idea please click here.

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