

# Mentoring Women in Academic Surgery: Overcoming Institutional Barriers to Success

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Women now comprise 50% of Caucasian matriculants to medical school; 66.6% of African Americans, 48% of Hispanics and 51.3% of Asians beginning medical school are also women. This trend is likely to continue since women now earn 57% of all undergraduate degrees, and they earn more degrees in the health professions and biological sciences than men. Black and Hispanic women now earn 66% and 60% of bachelor's degrees in their respective ethnic groups. Overall, women are concentrated at the lowest faculty ranks at medical schools, with 70% holding the rank of instructor or assistant professor. Women continue to experience difficulty with recruitment, retention, promotion and pay issues compared to men. They also experience additional gender-specific issues, including primary responsibility for rearing families and quality-of-life issues in some specialties, including most of the surgical disciplines. Clearly, there is an evolving population shift at work here; the pool of candidates for medical school faculty positions is likely to be evenly split between men and women for Caucasians, Hispanics and Asians, while the African-American pool is likely heavily weighted in favor of the women. Women are beginning to garner more Latin honors recognition at graduation as well and the definition of the "best and the brightest" is being redefined.

Therefore, institutions must continue to identify the barriers that deter women from entering surgery, to develop research tools to understand how to improve the process of developing leadership skills among women and to insure a "buy-in" of their male counterparts when components of the plan are being implemented.

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## INTRODUCTION

Women have a special set of institutionalized obstacles in academic surgery that inherently complicates their chances for success, and therefore warrant special attention from division heads, chairs and deans if this handicap is to be overcome and women's chances for success normalized to that of their male peers. In 1965, only 9% of medical school matriculants were women, and their number had increased to only 36% in 1992.<sup>1</sup> Women now comprise >50% of all students entering medical school. This is causing a population shift in the applicant pool, which, for surgery in the past, was heavily weighted towards Caucasian men.<sup>2,3</sup> Women now earn 57% of the bachelor's degrees in America compared to 49% in 1980.<sup>4</sup> If surgical residency programs want to capture the "best and the brightest" in the future, then training program directors need to be aware of this shift and develop a strategy designed to attract women to surgery, and deal with the institutionalized barriers to women's success. After the match in the year 2002, when a number of prestigious surgical programs went unfilled, there was a genuine panic across the land: surgery had lost its appeal to the traditional "best and brightest." It is interesting that, after the 2003 match returned to "normal" for most of these institutions, there has been less traffic on the radar screen about this "lost appeal" and, by inference, the need to do anything to make the specialty more attractive to students of both sexes. In other words, the wake-up call is now being ignored. As Charles Drew, MD, former professor and chairman of surgery at Howard University, used to say, "Your little sister could probably sew better than you," and Rosalyn Scott-Sterling, MD of the King-Drew School of Medicine said for years that, "The only difference between female and male residents is upper body strength, and that this is easily corrected by an abdominal retractor."<sup>5,6</sup> Now, the challenge for program directors is to be aware of the fact that the "best and the brightest" today may well be a five-foot-five-inch woman who wants to emulate Julie Freischlag, MD; Carol Scott-O'Connor, MD; Olga Jonasson, MD; Rosalyn Scott-Sterling, MD; Barbara Bass, MD; and

others and become surgeons, faculty members, medical executives, deans and departmental chairs. They want to attend the American College of Surgeons (ACS), the Association for Academic Surgery (AAS), the Society for University Surgeons (SUS) and the American Surgical Association (ASA). They also wish to succeed as wives and mothers who attend soccer games, ballet performances and parent-teacher meetings.

### **CAREER PATHWAY FOR CAUCASIAN MALE ACADEMIC SURGEONS**

If one considers the career of a Caucasian male academic general surgeon, his path to success will go through the AAS, Fellowship in the American College of Surgeons, a couple of regional societies, the SUS and, finally, the ASA. A white male academic specialty surgeon would ultimately become a member of several specialty societies such as the Society of Thoracic Surgeons/American Association for Thoracic Surgery or the Eastern Society of Trauma/American Association for Trauma. In many instances, these subspecialty surgeons tend to spend less and less time attending the nonspecialty meetings over the years in lieu of their specialty meetings, thus decreasing their time out of the office and away from their academic, clinical and family responsibilities.

### **CAREER PATHWAY FOR CAUCASIAN FEMALE ACADEMIC SURGEONS**

If one follows a parallel career pathway for a Caucasian female academic general surgeon, the same list applies as for her male counterpart, with the addition of the Association of Women in Surgery (AWS), which adds another commitment to her schedule. Women who elect to pursue surgical subspecialty training incur even more obligations. For example, a female thoracic surgeon will eventually add the Association of Women in Thoracic Surgery to the AWS in addition to the Society for Thoracic Surgeons and, later, the American Association for Thoracic Surgery. Thus, for a Caucasian academic female surgeon, the list of scientific meetings that require some time and attention would almost be double that of her male counterparts if she is to be successful. Therefore, women will always have more obligations for time away from work, home and family in order to avail themselves to networking, gender mentoring and dealing with issues of women in surgery and simply being out front and visible so as to facilitate the recruitment, development and retention of other women to the discipline.

### **CAREER PATHWAYS FOR AFRICAN-AMERICAN AND HISPANIC ACADEMIC SURGEONS**

Continuing this comparison to include African-American or Hispanic female academic surgeons expands this list to include ethnic organizations such as the Surgical Section of the National Medical Association,

the Society of Black Academic Surgeons for African Americans, and the National Association for Hispanic Physicians and other specialty organizations for Hispanics for an even larger number of organizations vying for time and attention.

Regardless of any formula utilized, women must go to more meetings and events than their male counterparts, irrespective of specialty. This means more financial support from the department, more time for authorized leave, less time devoted to clinical activities and revenue generation, and less time to attend hospital and university committee meetings while protecting time for teaching and research activities that are essential for promotion. It is extremely important that the male faculty members are given cultural sensitivity training so that they understand the necessity for this differential treatment to avoid controversy and complaints of a double standard.

### **DISCUSSION**

Shirley Tilghman, PhD, president of Princeton University, noted that, "The difficult task of balancing work and family is at the core of the underrepresentation of women in professions."<sup>7</sup> She also commented on the difficulty in maintaining proficiency in the ever-changing world of molecular science with just one day a week in the laboratory. She also stated that, ultimately, she would have to close her laboratory after all the staff had been relocated, which suggests that one has to surrender some component of their academic life. Of course, this is acceptable once a woman achieves this level of success since administration and travel requirements assume a more central role in one's professional life just as it would a male's.

Toni Ganzel, MD, professor of surgery and otolaryngology and senior associate dean for students and academic affairs at the University of Louisville, noted that "having children adds a dimension of complexity" and that when she started at Louisville, "there wasn't an option to extend the tenure clock."<sup>8</sup> When she asked the chair of general surgery about the details of the maternity policy, the response was that it had never come up before. Recent Association of American Medical Colleges (AAMC) data show that although half of the students entering medical school are women, only 28% of faculty are women and only 11% of faculty who hold the rank of full professor are women.<sup>8</sup> Since issues related to childbearing often top the list of reasons for failure of females to gain tenure, section chiefs, chairs and deans must adequately address this with supportive programs, ideally located onsite. The University of Louisville grants a six-week paid maternity leave for new mothers, and a tenure-clock extension of 6-12 months is automatically granted upon request. This is also available to new fathers as well. This may be particularly important in situations where both parents are on the faculty as is the case with the Ganzels. Some 92 of the 125 medical schools have policies that allow stopping the

tenure clock, but there is little uniformity.<sup>8</sup> The creation of medical-center-wide policies on parental leave and tenure-clock interruptions should be high priority for chairs, deans, executive vice presidents and hospital chief executive officers at all academic health centers.

Daycare centers are generally available on most campuses, but the hours may not exactly suit the life of an academic female surgeon, especially if the spouse is also a physician. Here again, strong spousal support is important, but this too may be cumbersome if the spouse is also in medicine. Nannies, live-in assistants, family and a dependable cadre of babysitters are also essential and must be available on short notice. Proximity of family and friends is often helpful but rarely seen because of the mobility of modern-day physicians. Ganzel points out that, "who she is as a wife and mother impacts on who she is as a physician, caring for patients and working with students and leading programs."<sup>8</sup>

## THE IMPORTANCE OF MENTORING

Perhaps the most important ingredient for success is finding a suitable mentor. Many institutions have established mentoring programs, but in most cases this is still a person-to-person relationship, which can be aided by deans, chairs and section chiefs. At present, owing to the paucity of senior female faculty members, mentors for women will most likely have to be of the opposite sex for the foreseeable future. However, women should be mindful that the older generation of surgeons might have problems in this role, as they may not have accepted the role of women in surgery. Therefore, women must seek out mentors who understand the important of balance between careers and families. Often, one will find that they are people who have been quite successful in both roles. Perhaps this should be the bellwether that young female surgeons should first seek in a mentor. Diane Magrane, MD, associate vice president for faculty development and leadership programs at the AAMC, when asked what advice she would give to someone just beginning a career in academic medicine was quoted as saying, "... Know thyself and follow it with a few trustworthy mentors and know thy institution's advancement policies."<sup>9</sup> She also stressed the need for young people to invest in their own success by seeking out programs such as the Harvard-Macy and the AAMC Women in Medicine Program.<sup>10,11</sup>

The University of Pennsylvania started a program in 1997 headed by Dr. Stephanie Abbuhl, vice chairman and associate professor of Emergency Medicine called FOCUS on Health Leadership for Women, which was originally a women's health research program.<sup>12</sup> A mentoring component was added shortly thereafter and has resulted in an increase in the number of women being promoted to senior academic rank. The groups meet 2-3 times a month and cover topics such as finances, promotions, scientific writing, refining speaking skills, balancing work and family and other gender-equity

issues across the campus. This program received the 2004 AAMC Women in Medicine Leadership Development Award. The Women in Medicine program is sponsored by the AAMC, and the dean of each medical school is permitted to appoint one or two women faculty, termed women liaison officers (WLOs), to this program. The program is designed to assist deans, WLOs and individual female faculty members in addressing gender-related issues and improving their chances for academic success. It also fosters networking, development and shared resources. It sponsors two annual meetings of three days each: 1) entry-level session for instructors and assistant professors and 2) mid-career session for assistant professors with four years of service and associate professors. There is also a session of Women in Medicine at the annual meeting of the AAMC. While the goals are admirable, one-third of the WLOs receive no financial support for the program. In 2002, the AAMC commissioned a panel entitled, "The AAMC's Increase in Women's Leadership in Academic Medicine Implementation Committee," to make recommendations as to how to increase the number of women in leadership positions at academic health centers. They concluded that the progress in this arena over the past quarter of a century has been "incomplete and inadequate" and that "the long-term success of academic health centers is inextricably linked to the development of women leaders."<sup>13</sup> They concluded that the paucity of research on leadership development and executive selection in academic medicine suggests the lack of a framework for understanding exactly how to improve women's leadership development. Only 13% of medical schools have a formal women's faculty organization and another 31% have an informal venue, thus leaving >50% with essentially nothing. The long-standing Program for Chiefs of Clinical Services, sponsored by the Harvard School of Public Health, should also be targeted by women. But, again, one has to be able to cover the tuition (which is expensive), room and board, and the two weeks away from work and family.<sup>14</sup>

There is an ongoing program in place to assist senior female faculty, associate professor and above from American and Canadian academic health centers called the Executive Leadership in Academic Medicine (ELAM), which has been in existence since 1995.<sup>15</sup> This program has been specifically designed for senior women who have demonstrated strong potential for senior leadership positions within a five-year time frame. Since its inception, ELAM graduates have held positions as chair or above at more than 60 academic health centers. Again, institutional support is required for this one-year program, including financing, time away from work and support after graduation. While this program is enormously important for the target audience, it does not address the needs of junior faculty, many of whom may not reach this level if left unattended. It would be

useful for junior faculty to access ELAM's website to review their selection criteria to help with their own individual development plan. The analogy here is an amorphism that is frequently used with young investigators: if you have never read a funded R01, you are probably never going to get one.

Much attention has been paid recently in an attempt to understand those issues that deter women from choosing surgery as a career. Although lifestyle issues have largely been touted as a major reason, a recent study by Gargiulo showed that women are not more likely to be deterred by lifestyle, workload or even the lack of role models.<sup>16</sup>

## SUMMARY

Although women have achieved parity in the number admitted to medical school, they continue to be underrepresented at all levels of academic surgery. If diversity is important, and all evidence suggests that this is a desirable goal, then every effort must be made to correct these inequities. Although all of the factors and issues necessary to do this have not yet been identified, whatever these recommendations are will likely compound some of the existing problems at academic health centers with regards to women such as recruitment, retention, equal pay and promotion while creating an entirely new set of problems related to gender equity. Meanwhile, it is incumbent upon all presidents, deans, chairs and section chiefs to continue to investigate the barriers to women

entering surgery, explore new approaches to enhancing the leadership skills of women surgeons, and to create a culture of understanding among their male counterparts to avoid incurring their wrath and accusations of a "double-standard" in what would amount to a veritable "affirmative action" program for women in surgery.

## REFERENCES

1. AAMC Data Warehouse; student section. 01/16/02.
2. www.aamc.org/data/facts/famg92001.htm. Accessed 05/12/06.
3. Barzansky B, Etzel SI. Educational programs in U.S. medical schools, 2003-2004. *JAMA*. 2004;291:1025-1031.
4. Auer H. *Buffalo News*. "Graduate Gender Gap." Section A, pp. 1,7, December 18, 2003.
5. Organ CH Jr., Kosiba M, ed. *A Century of Black Surgeons*. Chapter 1, page 66. Vol. 1. Normal, OK: Transcript Press; 1987.
6. Personal communication.
7. Tilghman S. *Academic Physician and Scientist*. Nov./Dec. 2002;2, Lippincott, Williams and Wilkins (AAMC publication)
8. Ganzel T. *Academic Physician Scientist*. Lippincott, Williams and Wilkins (AAMC publication). Sept. 2003, pp. 1, 6.
9. Magrane DM. Up close and personal with Diane M. Magrane. *Academic Physician and Scientist*. January 2004;2,3.
10. www.harvardmacy.org. Accessed 05/12/06.
11. www.aamc.org/members/wim. Accessed 05/12/06.
12. www.cceb.upenn.edu/pages/focus/ProgramLeadership.html. Accessed 05/12/06.
13. www.aamc.org/members/wim/iwl.pdf. Accessed 05/12/06.
14. www.hsph.harvard.edu/ccpe. Accessed 05/12/06.
15. www.drexelmed.edu/elam/home.html. Accessed 05/12/06.
16. Gargiulo DA, Hyman NH, Hebert JC. Women in surgery: do we really understand the deterrents? *Arch Surg*. 2006;141:405-408. ■

## C A L E N D A R

Submit your events and announcements no later than four months before the event to the calendar editor, Theresa Reed, MD, MPH; shaynes@nmanet.org. Include the following information: date, name of event, location; sponsoring group(s); topics to be presented; CME credit hours (if applicable); fees; event's web address (online brochure); and name, telephone number and e-mail of a contact person.

### SEPTEMBER

**National Sickle Cell Month.** www.SickleCellDisease.org

**National Cholesterol Education Month.**

nhlbiinfo@nhlbi.nih.gov

**Prostate Cancer Awareness Month.** www.pcacoalition.org

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**Take A Loved One for a Check-Up Day.**

www.healthgap.omhrc.gov

Sept. 27-Oct. 1

**American Academy of Family Physicians.** Washington Convention Center, Washington, DC. www.AAFP.org, 913-906-6000

### OCTOBER

**Halloween Safety Month.** www.preventblindness.org

**Healthy Lung Month.** www.lungusa.org

**National Physical Therapy Month.** www.aota.org

**SIDS (Sudden Infant Death Syndrome) Awareness Month.** www.firstcandle.org

**Eye Injury Prevention Month.** www.aao.org

**2006 African Diaspora Educational Assembly.** Sponsored by NMA. Johannesburg, South Africa. William Matory, MD, wmatory@nmanet.org



8-14

**Fire Prevention Week.** www.firepreventionweek.org

19-21

**2006 Cardiometabolic Health Congress. "From Metabolic Syndrome to Cardiometabolic Risk."**

Marriott Copley Place, 110 Huntington Ave., Boston, MA. www.cardiometabolicehealth.org, 877-571-4700.

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**National Mammography Day.** www.cancer.org

Oct. 22-Nov. 3

The Maryland State Affiliate of NMA sponsors a delegation of medical professionals to meet in China. **"People to People Ambassador Program."** Departs from Los Angeles, CA, going to Beijing, Xi'an, and Shanghai with an optional excursion to Hong Kong. CME 22.5 hrs. Category 1. Estimated cost: \$4,995/person. info@ambassadorprograms.org, 877-787-2000; Trudy R. Hall, MD, president, Maryland State NMA: trudoc@erols.com, 410-471-1293

### NOVEMBER

**American Diabetes Month.** www.diabetes.org