Perseverance has always been key. Back in the 1920s, the first generation of women at the UVM College of Medicine persevered to be the first of their gender to be admitted to the school. The late Harriet Dustan, M.D. ’44 overcame challenges to build an outstanding career in hypertension research at the Cleveland Clinic. And two decades later, Medical Alumni Association President Ruth Seeler, M.D. graduated as, in her words, “100 percent of the women in the Class of 1962.”

Thanks to these women and their colleagues, perseverance and immeasurable hard work brought about important change in the field of medicine and biomedical science, both long dominated by men. According to the National Science Foundation, in 1978 only 23 percent of doctorates in the life sciences were awarded to women. By 2008, that number had grown to 53 percent. In 1970, just over 11 percent of the nation’s matriculating medical students were female. Today the Association of American Medical Colleges reports that nearly 48 percent of first-year medical students are women. In addition, women comprised 71.5 percent of first-year college students nationwide in 2008, as reported by the U.S. Department of Labor, Bureau of Labor Statistics. That means tomorrow’s doctors and scientists are just as likely to be female as male — a significant gender shift that has been growing slowly but steadily over time.

Here at UVM, women comprised about a quarter of College of Medicine students by the ’70s, growing over the years to 62 percent of the Class of 2010. Three departments are chaired by women (Polly Parsons, M.D., in Medicine, Paula Tracy, Ph.D., in Biochemistry, and Susan Wallace, Ph.D., in Microbiology & Molecular Genetics) and Melinda Estes, M.D., serves as president and CEO of Fletcher Allen Health Care, the College’s academic medical center partner. While ninety years of effort have changed the landscape for women in the biomedical sciences, the work of these pioneers is far from done. Continuing to balance priorities while forging ahead in their own successful careers, today’s role models are also lending a helping hand to the women (and men) who choose to follow in their footsteps.
Get What You Need

“There’s definitely still a glass ceiling,” says Polly Parsons, M.D., E.L. Amidon Professor and Chair of Medicine. “Even today only 15 percent of medical school department chairs are women.” According to the AAMC, in 2009, 20 percent of women in the basic sciences were full professors; in the clinical sciences, that figure was 17 percent.

As a college student at Radcliffe, she and her female colleagues didn’t think twice about pursuing both a career and a family. “It was the ‘70s, the ‘we can do it all era,’ and many of us went to medical school, where it didn’t seem foreign to be in a male environment,” she says. Parsons forged a reputation as an outstanding investigator, a leader, and scholar in pulmonary and critical care medicine, and an exceptional clinician and teacher. She joined the College of Medicine faculty in 2000 as professor of medicine, director of pulmonary and critical care medicine, and chief of critical care services at Fletcher Allen. In 2005 she was named interim chair and physician leader of medicine, after a national search in 2007.

Since her student days, Parsons says, there’s been a modification among women: “From the idea of ‘we can have it all’ to ‘we can make it work.’” Parsons’ typical day begins by answering emails from home at about 6:30 a.m. She gets to work between 7:30 and 8:30. Most of her work as chair is administrative but she often does morning report, where she teaches residents, goes on grand rounds, and reviews budgets and grant proposals. Her work on national committees and advisory boards adds to her busy schedule, she says, but also “keeps me involved with a collaborative group of female colleagues, many of whom I’ve known for years.”

“I have an incredibly supportive husband,” says Parsons (she is married to Associate Professor of Psychiatry James L. Jacobson, M.D.). Whoever gets home first gets to mentor other women — and men — who wanted to pursue medical careers. “I have always mentored men and women the same,” she says. “And I give the same advice to everyone: Have an idea about what you want to do. Get resources, get what you need to be successful. Be in a collaborative, nurturing environment. Don’t fly solo. Asking for help is the best way to go forward. The key is to assume you can do anything. If there’s a bump in the road make sure to find someone to bounce things off of. Make sure you have a mentor.”

Since becoming Chair of Medicine, she has hired 35 faculty members, about half of them women. “We pick the best candidates for the job,” she says. “A number of outstanding women have risen to the top, with a vast range of job descriptions from clinicians to research scientists. They are showing today’s medical students what’s possible.”

“Polly is always there when I need her,” says Renee Stapleton, M.D., an assistant professor in the Division of Pulmonary and Critical Care who joined the UVM/Fletcher Allen in September 2007. She has a ton of experience, she’s very supportive and encouraging, but more than that — she’s fun, kind, and a great role model.”

Throughout her career, Parsons has made it a priority to mentor other women — and men — who wanted to pursue medical careers. “I have always mentored men and women the same,” she says. “And I give the same advice to everyone: Have an idea about what you want to do. Get resources, get what you need to be successful. Be in a collaborative, nurturing environment. Don’t fly solo. Asking for help is the best way to go forward. The key is to assume you can do anything. If there’s a bump in the road make sure to find someone to bounce things off of. Make sure you have a mentor.”

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Be Seen and Heard

“Mentoring for me starts with a personal connection to an individual,” says Brooke Mossman, Ph.D., “I tell them to pay attention to their grades and courses, but also to pay attention to research, and to get their names as first author on as many papers as possible. Because that’s what it takes to be successful.”

Mossman, professor emerita of pathology and director of the Environmental Pathology Program, is internationally known for her work studying the effects of asbestos on cells in the lungs. She received the Alumni Achievement Award from the UVM College of Medicine in 2004. In 2008, she received the Wager Medal Award from the International Mesothelioma Interest Group for her contribution to mesothelioma research. A funded investigator since the 1970s, she also recently authored a paper on Asbestos, Lung Cancers and Mesotheliomas in the American Journal of Respiratory Cell and Molecular Biology, or “Red Journal,” that has elicited interest from all over the world.

That paper “is really a tribute to the work in my lab,” attests Mossman, as it was a follow up to a paper by a former student, Yvonne Janssen-Heininger, Ph.D., who is now a professor of pathology in the College. “Yvonne’s article was one of the most highly regarded articles ever published in that journal,” Mossman says with pride.

Sherrill Lathrop, a third-year doctoral student in Cell and Molecular Biology, is a member of Mossman’s lab team. “She’s capable of handling it all, and taking it all in stride,” Lathrop says of Mossman, with whom she has weekly meetings and nearly daily email exchanges. “I enjoy her approach to mentoring, and I feel comfortable sharing my ideas with her. I really feel I’ve found a home in this lab.”

Mossman earned her undergraduate degree in zoology, her M.S. in physiology and biophysics, and her Ph.D. in cell biology at UVM, where her mentor was Mary Jane Gray, M.D., D.M.Sc. As an undergaduate, Mossman did an honors thesis with Gray, a prominent researcher on cervical cancer.

“Out of one hundred grad students, four of us were women. It was the era of mini-skirts and we found men, even some of the faculty, were very biased,” says Mossman. At conferences, she says, “I didn’t go to the bar with male colleagues at night, which is too bad, because a lot of science is discussed there. Yet a lot of women, even today, won’t go into that situation. I think in the field of science, politics are still dictated by men, but women are becoming more powerful. We’re organizing events, we’re picking women to head meetings. I see more women going on to higher levels.”

Like Parsons, Mossman admits it can be hard to balance a career and family. She says, “It helps to have a supportive husband who will give a little and realizes it’s not a nine-to-five job. I’ve been lucky.”

Make Opportunities

After a quarter century at the UVM College of Medicine, Professor and Interim Chair of Biochemistry Paula Tracy, Ph.D., also considers herself lucky. She and her husband, Russell Tracy, Ph.D., professor of medicine and former senior associate dean for research and academic affairs, were both able to find positions at the same institution. “And we were able to make those positions into things we really enjoy,” she says. “Having a supportive spouse is critical,” she says. “Women want to be able to do it all, and to do that as a couple calls for communication and teamwork. I always tell students...
to move a plane ride away from their families and learn to make things work as a two-person team.

Tracy received her Ph.D. in biology, with an emphasis in biochemistry, from Syracuse University in 1977. She was one of fifteen graduate students, only five of whom were women. Only two of those women finished the program.

"I never felt I was any different than the men at that time," she says. "I had a fabulous study committee, all male, who knew I could do the job well, and I relied on them to guide me. I was also influenced by the senior people in my mentor’s lab."

Her current interests in how platelets regulate blood clotting reactions and how the blood clotting system contributes to cardiovascular disease developed as a result of five years of postdoctoral training in the Special Coagulation Laboratory at the Mayo Clinic in Rochester, Minn. In 1985, she joined the College as a research assistant professor of medicine and biochemistry and member of the Thrombosis Research Center. She became the tenured professor of biochemistry in 1995. She received the UVM Chapter of the American Medical Women's Association Gender Equity Award in 2005, the same year she accepted the position of interim chair of the Department of Biochemistry. Recently, Tracy became the University’s representative to a new group in the AAMC dedicated to women in science and medicine.

Tracy mentors graduate students, medical students and postdoctoral students, and can’t recall ever turning down anyone in need of a mentor. One of those graduate students was Beth Bouchard, Ph.D. ’96. "While I was a graduate student in her laboratory, Paula provided a supportive learning environment during my development into an independent research scientist," says Bouchard.

Today, Bouchard is a research assistant professor of biochemistry at UVM, where she returned to join the faculty in 2000. "As her colleague, I’ve seen Paula continuing to provide this level of support for her current students, and I look forward to carrying on the tradition," says Bouchard.

"It’s so important that people have someone to listen to and understand what they see as important," says Tracy. "I try to offer advice regarding the priorities students need to succeed, and I try to give them an opportunity to understand who they are. I tell all of them, though, that a supportive learning environment during their development is crucial. "You have to be a little bit of a showman to grab their attention, but I find out where their interests and abilities lie, and I try to give them an opportunity to understand what they see as important," says Tracy. "I try to offer advice regarding the priorities students need to succeed, and I try to give them an opportunity to understand who they are. I tell all of them, though, that a supportive learning environment during their development is crucial."

"Communication skills — oral and written — are important. You have to be a little bit of a showman to grab your audience, and make them realize you have the greatest data. But the best thing is to be good at your job and take advantage of opportunities to be recognized. And that can mean making your own opportunities."

Leave a Legacy

Not many people have earned the label “local legend.” One of the College of Medicine’s local legends was actually named so by the National Library of Medicine. She is Mimi Reardon, M.D. ’67, who served the College for thirteen years as associate dean for primary care prior to her retirement in 2006. Her founding work in Vermont’s Area Health Education Centers (AHEC) has helped to earn more than $15 million in grants to integrate and improve health care services across professional disciplines.

When Reardon enrolled at the College of Medicine in 1963, only four of her fellow students out of a class of fifty were women. But she found Vermont to be a friendly place.

“I felt extremely welcome as an individual and a female applicant,” she recalls. “The faculty was very supportive of us.”

She notes that “occasionally a male classmate would express negativity or a lack of acceptance, the idea that ‘you’re taking a place a man could have,’ but that didn’t bother me.” In fact, the male colleague who made that particular comment became “a role model for me,” she says. “I found out where their interests and abilities lie, and help them develop. I try to find a good balance in their lives — to find time for exercise, friends, family as well as their careers.”

Like all her fellow pioneers in the biomedical professions, Reardon emphasizes the importance for the students she mentors to periodically pause, recognize and celebrate their successes along the path to their profession. “I reflect with them on what they have accomplished already, and we celebrate what they’ve done and what they have already given to society.”

That assessment of their careers, and the careers of those who’ve gone before, shows how much perseverance and support can, in time, change the landscape.